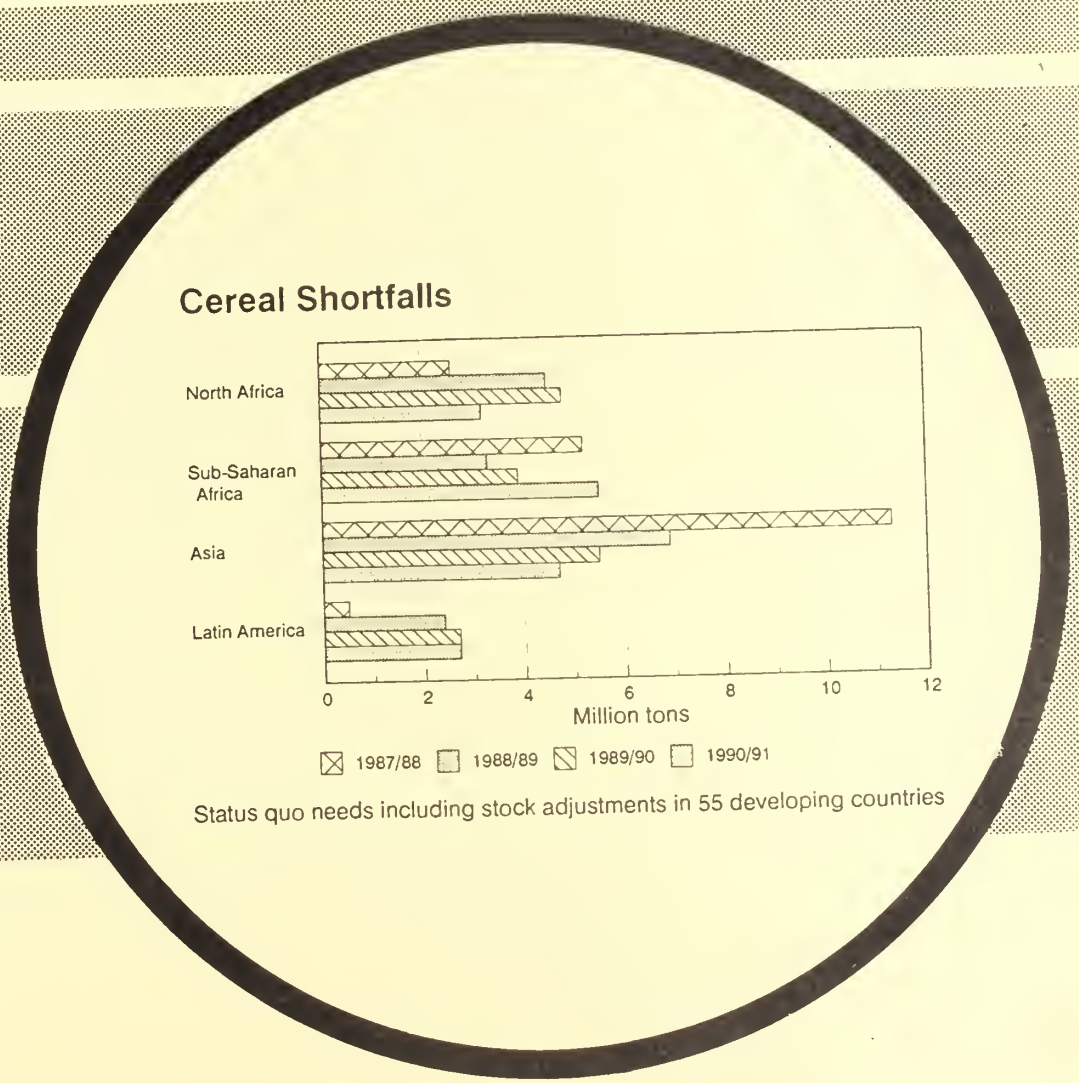
United States Department of Agriculture

Economic Research Service

December 1989

World Food Needs and Availabilities, 1989/90: Winter



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Foreword

This is the second of two reports published in the *World Food Needs and Availabilities* series for 1989/90. Complete updates have been done on 32 food-deficit countries. Estimates of 1989/90 and 1990/91 food needs are based on analyses through October 1989.

This is the final issue of *World Food Needs and Availabilities*. Resources are no longer available to conduct the detailed and frequent reporting characteristic of these publications. The Economic Research Service is proceeding to develop alternative methods for analyzing the adequacy of world food supplies in relation to requirements. Results of the new analysis will be available in the fall of 1990. Individuals and institutions on the mailing list for *World Food Needs and Availabilities* will be notified of future reports.

This report presents two alternative measures of the overall food import requirements and the additional food needs of each country for 1989/90 and 1990/91. The *status quo* and *nutrition-based* assessments are based on two different sets of normative judgments and assumptions regarding the role of additional food and the considerations that might govern its use. For an explanation of the two measures, see "Measures of Additional Food Feeds--Conceptual Framework" on page 7.

The most current weather, crop production, and financial data were employed in making 1989/90 assessments. The 1990/91 assessments are based on projected agricultural production, trade, and general economic trends evident when each country analysis is done. Estimates of 1991 U.S. export unit values are those available in July 1989. Estimates of commercial food import capacity are based on historical and projected foreign exchange availability, assuming continuation of recent debt payments. The share of this exchange allocated to imports is determined by the average value of commercial food imports in the past 3 years. Significant changes in debt payment performance would alter food import capacity and additional food needs.

Neither the status quo nor the nutrition-based measure deals specifically with the ability of countries' infrastructure to absorb food aid without overloading port and transportation capacity and storage and distribution systems. Food import absorption problems sometimes limit the quantity of assistance that can physically be provided. The gap between maximum absorbable and nutrition-based food needs is one measure of the seriousness of a country's food problem. In a very real sense, this measure captures the magnitude of the task of achieving the financial and physical capacity to import food, or increasing domestic food production consistent with national food demand.

The import requirements and additional food need estimates in *World Food Needs and Availabilities* reports are based on national agricultural and economic data. These estimates assist financial and logistics planning by both donor and food-aid recipient countries. It should be apparent, however, that additional food need levels are only a part of the calculus, and that delivering imported food to communities deprived by national food production shortfalls or civil disturbances is a major undertaking. Factors bearing on success include local transportation and communications infrastructure, the financial status of both local and national public service agencies, and the availability of international financial support.

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Acknowledgments

Ray Nightingale directed the overall planning and preparation of the report. The report benefits from the counsel of Steering Committee members T. Kelley White, Gene Mathia, Mike Kurtzig, Frederic Surls, Margaret Missiaen, Leslie Ross and Pat Scheid.

Nora McCann processed the document and Mike Kurtzig assisted with editing.

The Economic Research Service economists providing analysis for the report were Richard Brown, Rip Landes, Margaret Missiaen, John Parker, Stacey Rosen, Leslie Ross, Mark Smith, and Nydia Suarez.

Dee Linse reviewed the report for the Foreign Agricultural Service, USDA.

Abstract

Global cereal aid needs remain high, despite continued relatively favorable weather in food deficit countries. Estimated 1989/90 status quo needs of 17.0 million tons are about the same as 1988/89. Needs for Sub-Saharan Africa are 3.9 million tons, up nearly 580,000 from 1988/89. North African needs are up 340,000 and Latin American 350,000. However, Asian needs are down 1.4 million tons. Rising cereal prices on world markets, poor export earnings and continued debt service requirements limit countries' ability to pay for imports. Wheat prices continue strong because of tight supplies relative to demand.

Summary

The detailed country tables and narratives in this report include information on the quantities and dollar values of assessed additional food needs, including the needs for cereals and cereal equivalent of roots and tubers, pulses, and vegetable oils. This summary covers only additional needs for cereal-equivalent.

The August 1989 issue of *World Food Needs and Availabilities* presented detailed analyses of 22 countries. This issue covers an additional 32. The regional summary presented here includes all 54 countries, and Vietnam, which is assumed to have needs as assessed in August 1988.

Continued relatively favorable weather in food deficit countries has brought large gains in agricultural production. Nevertheless, global cereal aid needs remain high. Estimated 1989/90 status quo needs of 17.0 million tons are about the same as 1988/89 but well below the record 19.5 million of 1987/88. Nutrition-based needs in 1989/90 are 30 million tons, up 500,000 tons from 1988/89. Rising cereal prices on world markets, poor export earnings and continued debt service requirements are limiting the ability of developing countries to pay for food imports. Wheat prices continue strong because of tight exporter supplies relative to demand.

For Sub-Saharan Africa, status quo needs, including stock adjustments, are placed at 3.9 million tons, up 600,000 tons from 1988/89. Needs are also up sharply in North Africa, from 4.5 million tons to 4.8 million, including stock adjustments.

In Asia, cereal needs for consumption are down slightly in 1989/90, but the need to rebuild stocks brings needs to 5.5 million tons, compared to 6.9 million in 1988/89. Import requirements are down sharply in Indonesia and Pakistan, reducing status quo needs in the region. Import requirements dropped in all Asian countries except Afghanistan and Sri Lanka. India continues to have no status quo needs for consumption and will be able to increase stocks from domestic production.

Production has declined in Latin America, and import requirements have risen. With only marginal increases in import capacity, status quo needs for consumption and stocks are 2.7 million tons, up 400,000 from 1988/89.

Cereal aid shipments for the 1989/90 (July/June) trade year will be the lowest since 1975/76, according to estimates by the Food and Agriculture Organization. Almost 8.3

million tons of cereal are estimated to be shipped in 1989/90, down from 9.8 million in 1988/89 and the recent peak of 13.4 million in the previous year.

Nutrition-based needs for 1989/90 are down sharply in Asia, led by India and the Philippines. But these declines are offset by increases in Africa. Needs are up sharply in Egypt, the Sudan and Ethiopia. Needs in Latin America increased by nearly 400,000, led by Bolivia and Guatemala.

Cereal Needs in 1990/91

Assuming 1990/91 country cereal production to be on trend, stocks adjusted status quo needs will be down about 1 million tons. Needs in Sub-Saharan Africa will increase from 3.9 million tons in 1989/90 to 5.5 million. Asian needs will drop from 5.5 million to 4.7 million and North African needs from 4.8 million to 3.2 million.

Nutrition-based needs are projected to be down by 2 million tons in 1990/91, dropping in Asia and North Africa, but rising in the Sub-Saharan region.

Regional cereal situation and assessed additional cereal needs (million tons cereal equivalent) [1]

Region	Cereal equivalent production	Commercial import capacity	Status quo				Nutrition-based			Maximum [2] absorbable
			Total use	Import requirement	Additional needs for Consumption	Additional needs for Consumption + stocks	Total use	Additional needs for Consumption	Additional needs for Consumption + stocks	
1988/89[3]										
Total	326.0	18.1	32.4	353.7	14.4	17.1	374.4	29.4	34.4	33.1
Percent of production					4.4	5.2		9.0	10.6	
Percent of total use					4.1	4.8		7.9	9.2	
1989/90										
Africa	74.7	9.6	17.6	91.9	8.6	8.7	99.0	15.2	14.9	13.3
North Africa	17.0	7.2	11.4	28.3	4.5	4.8	26.2	2.2	2.5	4.8
Sub-Saharan Africa	57.7	2.4	6.2	63.6	4.2	3.9	72.8	13.1	12.4	8.5
West Africa	13.7	1.2	2.0	15.7	0.9	0.9	17.4	2.6	2.5	2.0
East Africa	34.1	0.7	2.3	36.3	1.7	1.4	41.6	7.1	6.7	4.1
Southern Africa	9.8	0.5	1.9	11.6	1.6	1.7	13.8	3.4	3.2	2.4
Asia	255.0	4.1	9.9	260.3	4.9	5.5	273.3	11.3	14.4	12.2
South Asia	193.6	1.7	5.9	194.8	3.9	4.5	209.1	10.5	13.3	10.8
Southeast Asia	61.4	2.4	4.1	65.5	1.0	1.0	64.2	0.8	1.1	1.4
Latin America	7.3	1.3	4.0	11.3	2.6	2.7	12.1	3.4	3.5	3.6
Caribbean	1.2	0.4	1.2	2.4	0.8	0.8	2.4	0.8	0.8	0.8
Central America	3.2	0.1	0.8	3.9	0.6	0.7	4.1	0.9	1.0	1.1
South America	3.0	0.8	2.0	5.0	1.3	1.3	5.5	1.7	1.7	1.7
Total	337.0	15.0	31.5	363.6	16.1	17.0	384.4	29.9	32.7	29.1
Percent of production					4.8	5.0		8.9	9.7	
Percent of total use					4.4	4.7		7.8	8.5	

1 Major cereals, and the cereal equivalent of shortfalls in roots and tubers.

2 Imports consistent with maximum recent levels of consumption and food stocks.

3 Assessment, April, 1989 World Food Needs and Availabilities

Regional cereal situation and assessed additional cereal needs (million tons cereal equivalent) - continued

Region	Cereal equivalent production	Commercial import capacity	Status quo				Nutrition-based			Maximum absorbable
			Total use	Import requirement	Additional needs for Consumption	Additional needs for Consumption + stocks	Total use	Additional needs for Consumption	Additional needs for Consumption + stocks	
1990/91										
Africa	76.4	11.5	18.8	94.7	8.3	8.7	101.9	14.7	15.1	13.6
North Africa	18.0	8.7	11.1	29.1	3.0	3.2	26.9	0.7	0.9	3.2
Sub-Saharan Africa	58.4	2.8	7.7	65.6	5.3	5.5	75.0	14.0	14.2	10.3
West Africa	14.1	1.3	2.0	16.1	0.9	0.9	18.0	2.6	2.6	2.1
East Africa	34.1	0.9	3.7	37.5	2.8	2.9	42.8	8.0	8.1	5.6
Southern Africa	10.2	0.5	2.0	12.0	1.6	1.7	14.2	3.5	3.5	2.6
Asia	259.9	4.9	10.7	265.6	4.5	4.7	278.9	10.0	12.0	9.8
South Asia	198.1	2.1	5.8	199.0	3.5	3.7	213.7	9.3	11.1	8.5
Southeast Asia	61.8	2.8	4.9	66.6	1.0	1.0	65.3	0.7	0.9	1.3
Latin America	7.7	1.5	4.1	11.8	2.6	2.7	12.5	3.3	3.4	3.5
Caribbean	1.2	0.5	1.2	2.5	0.7	0.7	2.5	0.7	0.7	0.8
Central America	3.2	0.1	0.8	4.0	0.6	0.7	4.3	0.9	1.0	1.1
South America	3.2	0.9	2.1	5.3	1.3	1.3	5.8	1.7	1.7	1.6
Total	343.9	17.9	33.6	372.1	15.4	16.2	393.4	28.0	30.5	26.8
Percent of production					4.5	4.7		8.1	8.9	
Percent of total use					4.1	4.3		7.1	7.8	

Food Aid Availabilities and Outlook

Cereal aid shipments for the July/1989-June 1990 trade year will be the lowest since 1975/76, according to estimates by the Food and Agriculture Organization (FAO). Almost 8.3 million tons of cereal are estimated to be shipped in 1989/90, down from 9.8 million in 1988/89 and the recent peak of 13.4 million in the previous year. This 2-year decline of almost 40 percent is the sharpest since the 1971-73 drop of 54 percent. The percentage of LDC's cereal imports comprised by food aid in 1989/90 will fall to less than 9 percent, the lowest level in two decades of FAO reporting.

This will impose harsh difficulties on some individual countries which will be forced to import larger volumes commercially or perhaps reduce consumption. However, on average, LDC's are better able now to absorb such a cut in food aid (in terms of their dependence on food aid) than in the early 1970's. In 1970/71, LDC's relied on food aid for 35 percent of their cereal imports, while in 1987/88, food aid provided 15 percent of their imported cereals. Hence, while the food aid decline should not to be down-played, LDC's on average are not as dependent on food aid as before, and hence not as vulnerable to sharp cuts.

United States

Higher grain prices, reduced CCC stocks, and a constant P.L. 480 program level brought about a decline in U.S. food aid in fiscal 1989. Programmed P.L. 480 tonnage declined about 20 percent from fiscal 1988. CCC commodities committed under the Sec. 416(b) overseas donation program declined from nearly 1.8 million tons in fiscal 1988 to approximately 1 million tons.

The fiscal 1990 P.L. 480 program will approximate last year's $1.5 billion. This would provide for total commodity shipments of about 6 million metric tons (grain equivalent), a little more than last year. Actual shipments will depend upon commodity prices and shipping costs during 1990.

For the second time since the African famine of 1985, the 4-million-ton Food Security Wheat Reserve has been tapped to help meet overseas food aid needs. With lower wheat supplies in both 1988 and 1989, the President authorized the use of up to 1.5 million tons in fiscal 1989 and up to 2 million tons in fiscal 1990.

Commodities available for donation under the Sec. 416(b) program are higher in fiscal 1990 than in fiscal 1989 -- about 2 million tons compared to approximately 1.2 million tons. Corn, sorghum, and frozen butter will again be available.

Australia

The Australian food aid program for fiscal 1990 (July/June) shows an almost constant funding level. About A$117 million (almost US$90 million) will be provided in fiscal 1990 compared to A$118 million (US$96 million) in fiscal 1989. While overall spending is nearly unchanged, food aid provided through bilateral, government-to-government programs will be reduced by almost A$8 million to A$46 million (US$35 million), while emergency/relief programs will be increased by almost A$7 million to A$27 million (US$20 million). Funding for food aid provided multilaterally through the World Food Program will remain unchanged at A$44 million (US$33 million). The FAO estimates that Australia will provide about 330 million tons of cereal aid in 1989/90.

Measures of Additional Food Needs--Conceptual Framework

Financial indicators and food and agriculture data are used to generate two alternative measures of food needs in addition to estimated commercial import capacity. These measures reflect the choice countries must make between making extraordinary commercial purchases and seeking food aid. Large commercial imports, particularly in successive years, would be at the cost of other imports, including those of development goods. In addition, a measure is computed of the maximum quantities of commodities that countries could feasibly import. Each measure highlights a different aspect of the food problem in low-income countries, and a different notion of the role food assistance might play in easing the problem. For a more detailed discussion, see the Methodological Notes in the August issue of *World Food Needs and Availabilities.*

The first measure, termed "status quo," estimates the additional food needed to maintain per capita use of food staples at levels reported in recent years.
Status quo food needs assessments are stabilized by the method of estimating per capita food use during a base period. Base period food use is calculated as the mean of the most recent 4 years within one standard deviation of the mean of the most recent 8 years. The method is explained in Methodological Notes, published in the summer issue. This per capita food use is called base-use in the following descriptions of tables and elsewhere in this report. The years employed in calculations are 1981/82 through 1988/89. No provision is made for improving substandard diets, for reducing allocations to countries where diets are relatively good, or for correcting problems related to the uneven distribution of food across or within countries. Because status quo estimates support a level of per capita availability that has been achieved in the past, in most cases they can be considered to be consistent with countries' ability to absorb food imports.

The second measure, termed "nutrition-based," estimates the additional food required to raise per capita caloric intake to meet FAO's recommended minimum requirements. This measure is based on the notion that food aid might be utilized in a way consistent with nutritional need rather than to maintain a recent, possibly substandard, status quo. In this sense, the nutrition-based measure might be viewed as a maximum additional food need, but is not necessarily consistent with a country's ability to absorb food imports.

The measure of food import feasibility called "maximum absorbable imports" provides a basis for assessing what quantity of additional food might be imported to help meet large nutrition-based food needs, or possibly building stocks in a period of ample world food supplies. The implicit assumption is that the food delivery systems of many of the countries involved have been fully loaded by past high consumption. In addition, the highest level of stocks maintained over the previous 8 years is assumed to be the largest level that can currently be maintained. The estimate is intended to provide a crude measure of the amount of food that can be physically absorbed. This level may then be used to scale back nutrition-based additional food need estimates that may be beyond the physical limits of a country's transportation, distribution, and storage capabilities.

While the status quo and nutrition-based methods differ in their estimation, they have a common structure. In each, an estimate of a country's domestic supplies of food staples is subtracted from an estimate of staple food requirements to arrive at an estimate of import requirements. These are then totaled for food groups, based on assumptions regarding their substitutability. An estimate of a country's capacity to commercially import food in each category is then subtracted from the import requirement to arrive at an estimate of additional food needs. Estimated import unit values for each food group are used to generate import requirements and additional food needs estimates in both quantity and value terms.

Several factors affecting additional food needs are not addressed in these estimates. First, food distribution problems--both geographical and across income or population groups--are overlooked by national-level food availability and country-average requirement measures. These can mask acute shortages in specific places within a country and uneven distribution of food across population groups. However, measuring the unevenness of food distribution is extremely difficult, because data are not available. Acute problems of this nature are treated qualitatively in the country narratives.

Second, additional food needs are estimated without reference to a country's food and agriculture policies and current performance. Although these issues figure importantly in a country's choice between exceptional commercial food purchases and concessional food imports, a comprehensive consideration of them is beyond the scope of this report.

Introduction to Country Tables

The following section reports on the food and financial situation and outlook for 55 countries in Africa, Asia, and Latin America. The materials summarize events during the 1988/89 local marketing year (generally July-June) and project food and financial conditions for 1989/90 and 1990/91.

Data shown in the tables must be interpreted with caution. Forecasts of food production, population, and financial conditions for 1989/90 and 1990/91 represent ERS's forecasts of what is likely to happen during those years. But 1989/90 and 1990/91 estimates of all other items--stocks, use, import requirements, and additional needs--are not forecasts of what is likely to happen; they are estimates derived using the status quo and nutrition assumptions summarized in the previous section and explained in detail in the Methodological Notes section of this report. Additional food needs calculations are also subject to a number of adjustments detailed in the August report.

In each of the country tables, any quantity less than 500 tons and any value less than $500,000 are shown as zero.

Tables Entitled "[Country] basic food data"

These tables provide food staple supply and utilization data for 1981/82-1988/89 and for forecast years (1989/90 and 1990/91). An explanation of each column heading follows:

1. Actual or forecast production--actual production for the individual staples for 1981/82-1988/89, and forecast production for 1989/90 and 1990/91.

2. Net imports--actual net imports during 1981/82-1988/89. Net import figures for forecast years are not supplied. Instead, estimated import requirements based on status quo and nutrition-based approaches are provided in the next set of tables.

3. Nonfeed use, 1981/82-1988/89.

4. Feed use--actual feed use, 1981/82-1988/89, and targeted feed use for 1989/90 and 1990/91. Targeted feed use is calculated to maintain per capita feed use at base-use levels. The same base level of feed use is employed in the status quo and nutrition-based estimates of aid needs.

5. Beginning stocks--actual stocks for 1981/82-1988/89, where reliable stocks data are available. Initial calculations of status quo and nutrition-based import and aid needs are done by maintaining the ending stocks for 1988/89 (beginning stocks for 1989/90) constant throughout the forecasting period. Import requirements for building food security stocks are calculated subsequently for the countries for which stock data are available.

6. Per capita total use--actual per capita human consumption and livestock feed use for 1981/82-1988/89.

7. Commodity coverage--the food staples included for each country.

8. Share of diet--each staple's share of total daily caloric intake, and the share of total daily caloric intake covered by the food staples analyzed. Data are drawn from the 1979-81 FAO Food Balance Sheets, with adjustments made in some cases for differences in FAO or ERS estimates of feed use or more recent significant changes in a staple's share of the diet.

Tables Entitled "Import requirements for [Country]"

These tables deal only with 1989/90 and 1990/91 estimates. An explanation of each column heading follows:

1. Forecast domestic production--data are drawn from the "basic food data" tables.

2. Total use, status quo--total amount of a staple needed to maintain per capita human consumption at the base-use level and feed use at the targeted level.

3. Total use, nutrition-based--the amount of a staple needed to support daily per capita caloric intake levels at the FAO recommended minimum, plus targeted feed use.

4. Import requirements, quantity, status quo--the imports of a staple required to maintain per capita consumption, and also to achieve the targeted levels of feed use with no change in stocks, as shown in the basic food data table. These estimates are calculated for each staple by subtracting forecast domestic production from status quo-based total use.

Subtotals for each commodity group are calculated by summing the import requirements for individual commodities. Calculated surpluses (negative import requirements) for individual commodities within groups are subtracted from deficits in other commodities, because foods are assumed to be substitutable within groups. Noncereals such as roots and tubers are converted to caloric wheat equivalents before being summed. Negative subtotals are shown as zeros because these calculated surpluses are assumed not to be substitutable elsewhere in the diet.

5. Import requirements, quantity, nutrition-based--the imports of a staple required to support recommended minimum per capita caloric intake and targeted feed use, as no change in stocks is shown in the basic food data tables. These estimates are calculated by subtracting forecast domestic production from nutrition-based total use. Totals for each commodity group by year are computed as described in (4) above.

6. Import requirements, maximum--the largest quantity that could be managed if countries wished to take the greatest advantage of low grain prices to improve stocks or to improve on the nutritional status of the population.

Tables Entitled "Financial indicators for [Country], actual and projected"

These tables give historical data and forecasts for four key financial indicators: yearend international reserves, merchandise exports, merchandise imports, and debt-service obligations. All data are on a calendar year basis and are compiled from a variety of sources, including the World Bank, the International Monetary Fund, Chase Econometrics, country sources, and ERS estimates.

Tables Entitled "Additional food needs for [Country], with stock adjustment and as constrained by maximum absorbable imports"

These tables provide calculations of cereal import requirements and food needs in excess of normal commercial imports, resulting from consumption requirements and from estimates of cereal stock adjustments required for food security. The estimated stock increment (quantity and value) is added to import requirements, and additional food needs to support consumption, to arrive at total import requirements and additional food needs. The stock increment is shown only when it results in altered total additional food needs (i.e., when not offset by negative additional food needs for consumption). For a discussion of how stock increment estimates are calculated, see Methodological Notes.

1. Commercial import capacity--an estimate of the amount of food within each group that a country can afford to import without reducing below historical levels the share of its available foreign exchange used for nonfood imports. Countries are assumed in forecast years to spend the same proportion of available foreign exchange on commercial food imports as in the base period. The measure is sensitive to historical and projected levels of foreign exchange holdings, total merchandise imports and exports, and debt service. The measure is provided in both quantity and value, using the same country-specific estimates of unit import costs as in the import requirements estimate.

2. Additional food needs, quantity--the estimated quantity of additional food needed in each commodity group to support either the status quo or nutrition-based use level and targeted stock and feed use levels. Negative needs are shown as zero.

3. Additional food needs, value--the estimated value of additional food needed in each commodity group to maintain either status quo or nutrition-based consumption and stock and feed use levels.

North Africa

Egypt

Total grain production is expected to rise to 9.6 million tons in 1989/90, up from 9 million in 1988/89. Corn production is estimated at 4.3 million tons, up from 4.1 million in 1988/89 because of greater use in hybrid seed and a small increase in area planted. Gains in wheat production to 2.8 million tons in 1988/89 and a record 3 million tons in 1989/90 have been driven by increases in the area planted in recently developed desert areas, and higher yields resulting from improved varieties and greater fertilizer use. Intense competition for limited land area is the major constraint to increased grain production in Egypt. An increase in the area planted in cereals tends to leave less area for cotton and vegetables.

Total grain imports declined from 9 million tons in 1987/88 to 8.6 million in 1988/89 because of disruptions in corn imports resulting from changes in import policies and procedures. Wheat and wheat flour imports have remained relatively steady for the last 4 years, in the vicinity of 7 million tons. Title I, P.L. 480 financing for wheat and flour declined to $154 million in fiscal 1989, about half the $300-million peak in 1981. However, U.S. wheat and flour exports to Egypt increased to about 3.8 million tons (wheat equivalent) because of full use of $350 million GSM 102 credit and EEP. Egypt recently purchased 600,000 tons of U.S. wheat outside government programs, the largest such purchase in the 1980s.

While Egypt maintains large imports of essentials like wheat, vegetable oils, and animal feed, imports of luxury items have been slashed. Imports of beef, poultry meat and dairy products are down sharply from the 1985-87 average. In 1988, Egypt's agricultural imports increased 5 percent to $4 billion, mostly because of higher prices for cereals and livestock products. During 1986 and 1987, lower world commodity prices and export subsidies by major suppliers reduced Egypt's expenditures for imports of wheat, flour, corn, beef, frozen poultry and some other items. Egypt's inflation rate rose to 22 percent in 1988 to nearly double that in the first half of 1989 because of the declining purchasing power of Egypt's pound, and the impact of policy reforms on food prices. Prices for bread, beef and poultry meat in 1989 are double the 1986-88 average.

Egypt's status quo grain import needs are estimated at 8.7 million tons in 1989/90. Nutrition-based import needs are estimated at 6.9 million tons. Lower nutrition-based needs indicate that current levels of per capita consumption of food staples have been above what is needed to meet minimum nutritional requirements. Food grain stocks have fallen below levels held in most recent years, and roughly 350,000 tons of grain imports are needed for stock building. Egypt's balance of payments worsened in 1988 as imports increased faster than foreign exchange receipts, and new external borrowing was necessary to maintain imports of essential commodities. Egypt's trade deficit has been widened by recent higher prices for imports of food and manufactures. While petroleum exports rebounded moderately because of higher prices and textile exports remained strong, exports of raw cotton declined to half the 1985-87 average value because of inadequate supplies. Egypt's foreign debt rose to $47 billion in 1989. Rescheduling lowered debt service payments from an original schedule of $5.5 billion for 1989 to about $2 billion. It may be difficult to reschedule future payments to the same extent as in the last 3 years, because debts owed to private banks will be more difficult to reschedule than those owed to governments.

Egypt's status quo additional food needs, including imports for stock building, are estimated to rise to about 3.5 million tons in 1989/90, valued at $862 million. Nutrition-based needs are estimated at 1.7 million tons and $430 million. Larger additional food needs assessments for 1989/90 are explained primarily by a deteriorating capacity to import food commercially because of higher world grain prices, higher debt service payments, and inadequate growth in export earnings.

Egypt basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	7,424	2,420	7,294	12,673	2,964	358	Wheat	36.9
1982/83	7,714	1,501	7,017	11,556	3,419	332	Rice	10.0
1983/84	7,883	1,257	8,242	11,907	3,984	342	Corn	16.0
1984/85	7,788	1,491	9,018	12,184	4,592	351	Sorghum	1.1
1985/86	7,818	1,521	8,768	12,182	5,065	351	Barley	0.2
1986/87	7,239	860	9,027	11,503	4,741	322	Total	64.2
1987/88	8,639	882	8,501	11,850	5,210	329		
1988/89	9,020	962	8,592	11,751	6,063	334		
1989/90	9,635	760						
1990/91	9,940	760						

Import requirements for Egypt

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	9,635	18,304	16,571	8,669	6,936	10,719
1990/91	9,940	18,786	17,011	8,846	7,071	10,930

Financial indicators for Egypt, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available Total	Foreign exchange available Share to major food imports
	$ million					Percent
1981	10,449	12,054	1,922	716	8,527	20
1982	10,091	12,385	1,993	698	8,098	18
1983	11,250	13,610	2,054	771	9,196	16
1984	12,237	14,451	2,090	736	10,147	18
1985	11,157	13,913	2,079	792	9,078	20
1986	10,000	15,052	1,737	829	8,263	17
1987	11,551	16,227	1,495	1,378	10,056	14
1988	12,100	17,806	2,300	1,263	9,800	
1989	12,650	19,200	2,088	1,332	10,595	17
1990	13,700	20,500	2,261	1,378	11,430	17

Additional food needs to support consumption for Egypt, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent						
Consumption						
1989/90	5,555	1,383	3,114	776	1,381	344
1990/91	6,717	1,492	2,129	473	355	79
Stock adjustment						
1989/90			346	86	346	86
1990/91			252	56	252	56
Total						
1989/90			3,460	862	1,728	430
1990/91			2,381	529	606	135
Maximum absorbable						
Cereal equivalent						
1989/90			3,460	862	1,728	430
1990/91			2,381	529	606	135

Morocco

Morocco made dramatic gains in agricultural production during 1988 and 1989, after suffering a drought in 1987. Yields for major crops rose sharply in 1988 and remained near that peak in 1989. Grain harvests in 1988 and 1989 were more than quadruple the drought-affected outturns of 1981--a year when 75 percent of the wheat supply was imported. Excellent weather and a rebound to record wheat and barley production allowed Morocco to achieve a 16-percent gain in farm output in 1988. Total agricultural production may increase an additional 4 percent in 1989 because of greater output of livestock products and horticultural crops grown under irrigation. About a sixth of the 8.5 million hectares of cultivated land are irrigated.

Morocco has made more progress towards self-sufficiency in specific agricultural commodities than any other country in North Africa. Food aid needs are generally related to income and food distribution problems, rather than deficiencies in the total grain supply. While large gains have been made in nutrition, some rural areas still suffer from an inadequate diet. Dependence on imported wheat declined from a third during 1980-82 to a fourth during 1986-88. Morocco was a net exporter of barley during 1986-88, but a third of the corn supply was imported. Total agricultural imports vary according to two factors -- the impact of weather on cereal production and world prices. Agricultural imports peaked at $1.1 billion in 1984 when world prices were relatively high and adverse weather reduced wheat and barley yields.

U.S. agricultural exports to Morocco averaged $204 million annually during 1986-88. Wheat usually accounts for three-fourths the value of U.S. agricultural exports to Morocco. Over 90 percent of U.S. wheat exports to Morocco move through government programs, mostly through a combination of CCC credit and EEP, with a major part through GSM 103 and a small amount through GSM 102. P.L. 480 wheat and flour shipments to Morocco have averaged more than 200,000 tons annually during 1983-89.

Morocco's economy is showing progress on a number of fronts. The current account showed a slight surplus in 1988, after running a deficit for 10 years. In 1988, exports increased 29 percent to $3.6 billion. Further gains are underway for 1989, partly because phosphate prices are about a fourth higher. Foreign exchange earnings from tourism now exceed $1 billion, and new banking arrangements are expected to boost remittances from workers in Europe.

Imports continue to grow, but at a slower pace than exports. Total imports increased 13 percent to $4.8 billion in 1988, and will probably pass $5 billion in 1989, mostly because of larger imports of industrial items. Bans on imports of specific items, particularly luxury goods, may be relaxed as the current account improves. Morocco's foreign debt increased from $17 billion in late 1986 to

$20.7 billion in December 1988. Part of the debt is on concessional terms, keeping debt service payments below $1.8 billion annually.

Status quo grain import needs are estimated at 640,000 tons in 1989/90, with nutrition-based needs estimated to be only slightly higher at 776,000 tons. With grain stocks rebuilt to relatively high levels following the bumper 1988/89 harvest, some 1989/90 import needs can be met by reducing stocks. With reduced import needs and the outlook for a moderate improvement in the balance of payments, no additional food needs are estimated for 1989/90.

Morocco basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	2,021	636	2,655	4,122	559	222	Wheat	42.8
1982/83	4,764	631	1,470	5,519	898	298	Corn	3.5
1983/84	3,457	448	2,296	4,868	1,075	269	Barley	15.9
1984/85	3,658	258	2,652	5,044	1,088	271	Total	62.2
1985/86	4,904	436	2,190	5,590	1,315	298		
1986/87	6,596	625	1,885	5,883	1,645	317		
1987/88	4,210	1,578	2,205	5,247	1,812	290		
1988/89	7,890	934	1,200	6,425	2,180	345		
1989/90	6,885	1,419						
1990/91	7,190	1,419						

Import requirements for Morocco

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	6,885	7,526	7,661	641	776	2,096
1990/91	7,190	7,715	7,872	525	682	2,013

Financial indicators for Morocco, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	3,084	3,840	1,274	230	1,810	28
1982	2,945	3,815	1,350	218	1,595	25
1983	2,879	3,301	1,188	107	1,691	18
1984	3,026	3,600	722	49	2,304	19
1985	3,180	3,849	967	115	2,213	17
1986	3,619	3,803	1,442	211	2,177	8
1987	4,236	4,230	1,270	411	2,966	8
1988	5,213	4,773	2,400	547	2,813	
1989	5,750	5,030	3,670	333	2,025	11
1990	6,100	5,300	3,800	300	2,191	11

Additional food needs to support consumption for Morocco, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent						
Consumption						
1989/90	947	161	0	0	0	0
1990/91	1,148	175	0	0	0	0
Stock adjustment						
1989/90			(178)	(30)	(178)	(30)
1990/91			31	5	31	5
Total						
1989/90			0	0	0	0
1990/91			0	0	0	0
Maximum absorbable						
Cereal equivalent						
1989/90			0	0	0	0
1990/91			0	0	0	0

Tunisia

Grain production plunged 85 percent to 289,000 tons in 1988/89 because of drought. In 1989/90, weather conditions for the wheat and barley crops did not improve significantly and 1989/90 grain production increased only marginally to about 430,000 tons. Although grain imports were record high in 1988/89, stocks of food grains, particularly wheat, are precariously low. Wheat imports have been below the level needed to maintain adequate stocks, in part because the durum wheat Tunisia seeks to import has been in short supply following the sharp reduction in North American durum production in 1988/89.

With another poor harvest in 1989/90, Tunisia's 1989/90 status quo and nutrition-based import needs are estimated at high levels. Status quo import needs are estimated at 2 million tons, while nutrition-based needs are estimated at 1.5 million tons. Lower estimated nutrition-based needs indicated that recent levels of per capita food grain consumption have been above those needed to achieve minimum nutritional standards.

Stocks are too low to offset import needs and about 100,000 tons of imports are needed for stock building to help protect food security.

Despite recent poor agricultural performance, Tunisia's macroeconomic setting has shown some improvement. Exports increased 12 percent to $2.4 billion in 1988, while imports rose 21 percent to $3.7 billion. However, the wider trade gap was covered by larger receipts from tourism, remittances, and foreign investments. As a result, the current account showed a surplus of $212 million in 1988, following a decade of deficits.

Tunisia's additional food needs are estimated to remain high in 1989/90. Status quo additional needs, including stock building needs, are estimated at 1.4 million tons. Nutrition-based additional needs are estimated at 794,000 tons. Key factors in the high levels of assessed needs are low domestic grain stocks with which to offset import needs, and rising world grain prices that have reduced the quantities that can be imported commercially with available foreign exchange.

Tunisia basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	1,234	201	1,142	1,730	627	356	Wheat	52.9
1982/83	1,256	220	864	1,741	469	327	Barley	1.9
1983/84	922	130	1,283	1,699	526	323	Corn	0.0
1984/85	1,024	110	1,100	1,707	502	314	Total	54.9
1985/86	2,067	25	852	1,791	873	369		
1986/87	607	280	1,542	1,859	460	314		
1987/88	1,898	110	1,413	2,048	885	388		
1988/89	289	488	1,885	1,882	585	319		
1989/90	431	195						
1990/91	881	195						

Import requirements for Tunisia

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	431	2,512	1,946	2,081	1,515	2,932
1990/91	881	2,568	2,058	1,687	1,177	2,552

Financial indicators for Tunisia, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	3,616	4,117	520	536	3,096	7
1982	3,467	4,169	485	607	2,982	6
1983	3,292	3,906	569	567	2,723	8
1984	3,101	3,913	650	406	2,451	9
1985	2,970	3,606	676	233	2,294	7
1986	3,101	3,765	793	305	2,308	6
1987	3,489	4,096	930	525	2,559	5
1988	3,825	4,779	930	450	2,895	
1989	4,150	5,050	850	450	3,280	6
1990	4,300	5,250	900	500	3,411	6

Additional food needs to support consumption for Tunisia, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent						
Consumption						
1989/90	725	132	1,356	247	791	144
1990/91	845	138	842	137	332	54
Stock adjustment						
1989/90			4	1	4	1
1990/91			4	1	4	1
Total						
1989/90			1,359	248	794	145
1990/91			847	138	337	55
Maximum absorbable						
Cereal equivalent						
1989/90			1,359	248	794	145
1990/91			847	138	337	55

West Africa

Burkina

The rainy season continued through the first week of October, assuring above average yields in most regions of Burkina. Late and erratic rainfall in June and early July contributed to a decline in area planted. Grain deficits are possible in the north where unusually heavy and closely spaced rains in August prevented weeding, and drought and high temperatures stressed crops in September. Coarse grain production is not expected to reach last year's record but should be adequate to meet the country's needs. Infestations of grasshoppers are reported over 1 million hectares in the north, but control operations are underway and crop damage should be limited. Pasture conditions were good for most of the season, but as drying occurs, grasshoppers will move into cultivated fields.

Burkina continues to face the incessant problems of a small, land-locked country with over 90 percent of its population dependent on subsistence agriculture. Since the 1987 change in government, political and economic conditions have gradually stabilized. Good weather has contributed to economic growth that averaged 5 percent annually during the last 5 years. Because of careful fiscal management, government deficits have been acceptable, and although international debt payments arrears have increased, they are relatively small by African standards. The cotton and gold sectors lead the economy and growth in these areas is expected to continue in 1990.

Burkina's import requirements are estimated at 50,000 tons, well below actual annual imports of 100,000 to 140,000 tons over the last 6 years. The 1989/90 deficit of 100,000 tons in wheat and rice is partially offset by coarse grain surpluses. Burkina's high commercial import capacity can be attributed to the large share of available foreign exchange allocated for food imports. These data are based on conditions which existed in the mid-1980's and do not accurately reflect current foreign exchange allocations. Burkina's large carryover stocks could be drawn down if localized shortfalls develop before the next harvest.

Burkina basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81	
							Commodity coverage	Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	1,250	0	84	1,281	3	177	Wheat	1.6
1982/83	1,179	50	82	1,259	2	171	Rice	3.6
1983/84	1,124	50	120	1,267	2	168	Corn	8.1
1984/85	1,125	25	141	1,265	2	164	Millet and	
1985/86	1,582	25	126	1,656	2	210	sorghum	56.1
1986/87	1,774	75	125	1,722	2	213	Total	69.5
1987/88	1,625	250	115	1,863	2	225		
1988/89	2,078	125	100	2,076	2	245		
1989/90	1,730	225						
1990/91	1,772	225						

Import requirements for Burkina

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	1,730	1,779	1,879	49	149	427
1990/91	1,772	1,826	1,928	54	156	442

Financial indicators for Burkina, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	159	348	14	71	146	3
1982	126	360	15	62	111	12
1983	113	309	15	85	98	15
1984	141	270	18	106	123	8
1985	131	352	27	140	104	24
1986	148	477	34	234	114	27
1987	175	500	31	323	144	22
1988	185	500	57	321	128	
1989	200	510	37	300	180	25
1990	210	520	39	300	182	25

Additional food needs to support consumption for Burkina, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent						
Consumption						
1989/90	105	31	0	0	44	13
1990/91	119	32	0	0	36	10
Stock adjustment						
1989/90			(32)	(10)	(32)	(10)
1990/91			5	1	5	1
Total						
1989/90			0	0	12	4
1990/91			0	0	42	11
Maximum absorbable						
Cereal equivalent						
1989/90			0	0	12	4
1990/91			0	0	42	11

Cape Verde

The rainy season began in mid-August, a month late, and tapered off rapidly in late September, causing crop failure in arid and semi-arid areas and severe stress in coastal areas of Santiago. Elsewhere, stress was less severe, reflecting moisture reserves which were adequate until about mid-September. Rains normally last through October. After the long dry spell from mid-September to early October, even additional rain will do little to improve yields. Production of both corn and beans is expected to decline sharply from 1988.

The Cape Verdean economy has undergone steady growth for the last several years despite fundamentally adverse conditions and a drop in overall foreign assistance revenues. Agricultural output in 1988 was above average for the third consecutive year. Still, food aid supplies almost all of the country's import needs as its poor financial condition severely limits its commercial import capacity. Import requirements for 1989/90 are estimated at 69,000 tons, including 17,000 tons of wheat, 21,000 tons of rice, and 31,000 tons of corn. Cape Verde's poor financial condition severely limits its commercial import capacity.

Cape Verde basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	3	0	57	60	0	200	Wheat	9.3
1982/83	4	0	71	75	0	244	Rice	9.3
1983/84	3	0	69	72	0	231	Corn	39.3
1984/85	3	0	67	70	0	219	Pulses	4.8
1985/86	1	0	54	55	0	168	Total	62.7
1986/87	12	0	54	66	0	197		
1987/88	21	0	45	66	0	192		
1988/89	16	0	57	73	0	206		
1989/90	5	0						
1990/91	6	0						
Pulses								
1981/82	3	0	0	3	0	10		
1982/83	4	0	0	4	0	13		
1983/84	5	0	5	10	0	32		
1984/85	5	0	1	6	0	19		
1985/86	2	0	5	7	0	21		
1986/87	6	0	1	7	0	21		
1987/88	13	0	1	14	0	41		
1988/89	13	0	1	14	0	40		
1989/90	5	0						
1990/91	6	0						

Import requirements for Cape Verde

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	5	74	58	69	53	84
1990/91	6	76	60	70	54	86
Pulses						
1989/90	5	8	5	3	(0)	10
1990/91	6	9	5	3	(1)	9

Financial indicators for Cape Verde , actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available Total	Foreign exchange available Share to major food imports
	$ million					Percent
1981	46	86	0	39	46	4
1982	59	96	2	43	57	8
1983	56	105	3	47	53	3
1984	67	83	5	45	62	4
1985	66	92	5	58	61	3
1986	76	91	4	55	71	2
1987	93	100	7	75	86	7
1988	85	104	10	83	75	
1989	87	109	6	90	95	4
1990	88	110	6	90	95	4

Additional food needs to support consumption for Cape Verde , with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent						
Consumption						
1989/90	4	1	65	14	49	10
1990/91	5	1	66	12	48	9
Stock adjustment						
1989/90			0	0	0	0
1990/91			0	0	0	0
Total						
1989/90			65	14	49	10
1990/91			66	12	48	9
Pulses						
1989/90	0	0	3	1	0	0
1990/91	0	0	3	1	0	0
Total						
1989/90		1		15		10
1990/91		1		13		9
Maximum absorbable						
Cereal equivalent						
1989/90			65	14	49	10
1990/91			66	12	48	9
Pulses						
1989/90			3	1	0	0
1990/91			3	1	0	0
Total						
1989/90				15		10
1990/91				13		9

Chad

The beginning of the rainy season in Chad was characterized by late and poorly distributed rainfall delaying planting in some areas and causing replanting in others. Harvest prospects improved in August with adequate rainfall in most regions, and abundant rains during the first 3 weeks of September provided ample moisture for good crops in the south. In the north, yields will be below normal due to the late start of the season. Pastures developed satisfactorily south of 14 degrees north and around the lakes, but elsewhere pastures are in poor condition. Locusts and grasshoppers have caused some crop damage despite continuing control efforts.

After declining 10 percent in 1986-87, real GDP rose an estimated 12 percent in 1988. This reflected a 17.5-percent rise in value added in the primary sector, as well as strong gains in the industrial and services sectors. Cotton remains the foundation of the Chadian economy, but the country still suffers from the effects of the fall in world cotton prices. Essential reforms in the management and operation of Cotontchad, the country's primary manufacturer, have increased unemployment and reduced buying power. The recent strengthening of cotton prices has improved the outlook for Chad's export earnings.

Chad's import requirements are estimated at 58,000 tons, below actual imports of the last 3 years. Even though production will not reach 1988's record, coarse grain supplies should be adequate for the 1989/90 season. Some drawdown of large carryover stocks is anticipated. Import requirements for wheat and rice are 33,000 and 20,000 tons, respectively.

Chad basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	548	25	62	610	0	149	Wheat	1.4
1982/83	466	25	53	524	0	123	Rice	3.8
1983/84	490	20	89	554	0	125	Corn	1.1
1984/85	300	45	89	419	0	95	Millet	47.8
1985/86	689	15	41	680	0	153	Cassava	6.9
1986/87	674	65	71	745	0	164	Total	61.0
1987/88	599	65	76	710	0	153		
1988/89	773	30	66	804	0	168		
1989/90	674	65						
1990/91	704	65						
Roots								
1981/82	191	0	0	191	0	47		
1982/83	197	0	0	197	0	46		
1983/84	200	0	0	200	0	45		
1984/85	170	0	0	170	0	38		
1985/86	200	0	0	200	0	45		
1986/87	205	0	0	205	0	45		
1987/88	205	0	0	205	0	44		
1988/89	220	0	0	220	0	46		
1989/90	220	0						
1990/91	225	0						

Import requirements for Chad

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	674	732	857	58	183	153
1990/91	704	752	883	48	179	146
Roots						
1989/90	220	221	290	1	70	10
1990/91	225	227	298	2	73	11
Cereal equivalent						
1989/90	762	820	974	58	211	155
1990/91	794	844	1,003	49	208	149

Financial indicators for Chad, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	83	81	1	7	83	0
1982	58	82	1	12	57	10
1983	78	99	1	28	78	3
1984	110	128	5	44	105	0
1985	62	166	9	33	53	3
1986	99	212	5	16	94	2
1987	109	226	7	52	103	12
1988	140	225	10	61	130	
1989	150	230	11	60	154	6
1990	150	240	11	60	152	6

Additional food needs to support consumption for Chad, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent						
Consumption						
1989/90	23	8	35	13	189	68
1990/91	25	8	24	8	183	59
Stock adjustment						
1989/90			(2)	(1)	(2)	(1)
1990/91			2	1	2	1
Total						
1989/90			33	12	187	67
1990/91			26	8	185	59
Maximum absorbable						
1988/89						
1990/91			33	12	131	47
1989/90			26	8	126	40

Gambia

Rainfall in Gambia was normal or above and well-distributed throughout the season. The outlook is for above average yields for most crops, even though grain production is not expected to equal last year's record. The peanut area declined significantly as farmers responded to lower prices, reduced from 1,800 dalasis per ton in 1986/87 to 1,100 dalasis in 1988/89 because of declining world prices. The traditionally important peanut sector had a poor year, but this was offset by increased production of other crops and a rise in other exports, including re-exports. The Government has announced the abolition of the peanut export tax, the guaranteed producer price, and the system of licensed peanut buyers. This will allow farmers to respond to international price incentives and reduces government costs. Real GDP growth was estimated at 6.3 percent in 1988/89 following 2 years of 5-percent growth.

Gambia's grain import requirements of 66,000 tons are somewhat lower than normal following two good harvests. Import needs for wheat and rice are 20,000 and 50,000 tons, respectively. Gambia's high share of foreign exchange allocated to food imports gives the country a commercial import capacity of about 60,000 tons.

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Gambia basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	80	0	36	116	0	176	Wheat	6.5
1982/83	90	0	45	135	0	200	Rice	28.5
1983/84	54	0	63	117	0	169	Corn	5.1
1984/85	71	0	83	154	0	217	Sorghum	2.6
1985/86	105	0	74	179	0	247	Millet	14.8
1986/87	102	0	72	174	0	235	Total	57.5
1987/88	97	0	77	174	0	229		
1988/89	124	0	75	189	0	243		
1989/90	110	10						
1990/91	120	10						

Import requirements for Gambia

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	110	176	147	66	37	88
1990/91	120	181	152	61	32	83

Financial indicators for Gambia, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	45	129	3	4	43	19
1982	59	95	11	8	48	15
1983	55	90	7	3	48	12
1984	89	98	5	2	84	12
1985	63	75	2	2	61	21
1986	64	84	10	14	54	30
1987	66	91	15	26	51	19
1988	70	100	19	29	51	
1989	75	105	9	30	75	23
1990	80	110	10	30	78	23

Additional food needs to support consumption for Gambia, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent						
Consumption						
1989/90	59	15	7	2	0	0
1990/91	69	15	0	0	0	0
Stock adjustment						
1989/90			(1)	(0)	(1)	(0)
1990/91			0	0	0	0
Total						
1989/90			7	2	0	0
1990/91			0	0	0	0
Maximum absorbable						
Cereal equivalent						
1989/90			7	2	0	0
1990/91			0	0	0	0

Mali

Rainfall in most regions of Mali was above normal as in 1988; however, the rains started late and were barely adequate for crop development in June and July. Heavy rains in August made up the deficits in most areas, but interfered with cropping activities, especially weeding. Good moisture conditions at the beginning of September minimized crop damage from below normal rainfall during most of the month. Rain during the first 10 days of October assured above average yields for most crops. Pastures remain in excellent condition with abundant watering points. Because early season showers were more frequent but less intense than last year, crops developed well while river levels rose very slowly. Reduced flooding was expected to restrict rice irrigation, especially along the Niger River.

Coarse grain output is not expected to equal last year's record of 1.7 million tons, because the erratic start to the season reduced area planted. By mid-October, the grasshopper infestations had caused serious crop damage in the west, center, and east of the country. More than a million hectares are infested of which about 65 percent is cropland. Control programs are underway and about 350,000 hectares had been treated by the end of September. Millet losses of 30 to 60 percent are reported in several villages; however, in terms of national production, grasshopper damage is limited but hard to quantify.

Real GDP declined about 1 percent in 1988 following the poor harvest of 1987; growth is expected to increase to 9 percent in 1989. In 1988, the Government implemented a number of structural measures aimed at improving incentives, reducing distortions, and increasing the productive capacity in agriculture. In the grain sector, the official prices for corn, millet, and sorghum were abolished, and the domestic market for grains was completely liberalized. The role of the grain marketing agency (OPAM) was reduced to the maintenance of a security stock, the distribution of food aid, and the supply of cereals to food deficit areas. In the external sector, cotton export earnings are expected to be up in 1989 on higher volume and price.

Mali's import requirements for 1989/90 are 92,000 tons, slightly above last year's actual imports, but well below the imports of the mid-1980's. Even though coarse grain production declined in 1989, output is more than enough to meet per capita consumption levels of recent years. This surplus partially offsets import requirements for wheat (40,000 tons) and rice (70,000 tons). Mali's high commercial import capacity reflects the large share of available foreign exchange allocated to food imports in the mid-1980's. Actual commercial grain imports were less than 50,000 tons in 1987/88 and 1988/89. Mali has large carryover grain stocks which could be used to meet unexpected shortfalls.

Mali basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	1,102	0	145	1,197	0	167	Wheat	1.6
1982/83	1,249	50	178	1,407	0	191	Rice	11.1
1983/84	1,386	70	284	1,555	0	206	Corn	4.6
1984/85	1,052	185	317	1,469	0	189	Millet and	
1985/86	1,315	85	202	1,507	0	189	sorghum	53.0
1986/87	1,699	95	106	1,750	0	214	Total	70.4
1987/88	1,545	150	101	1,696	0	201		
1988/89	1,904	100	90	1,934	0	223		
1989/90	1,677	160						
1990/91	1,757	160						

Import requirements for Mali

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	1,677	1,769	1,943	92	266	338
1990/91	1,757	1,822	2,005	65	248	317

Financial indicators for Mali, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	154	269	10	17	145	8
1982	146	233	9	17	137	22
1983	167	241	14	16	152	10
1984	192	258	20	27	172	19
1985	176	329	38	23	138	37
1986	206	347	35	23	170	15
1987	256	335	32	16	224	8
1988	249	359	71	36	178	
1989	260	375	40	30	223	20
1990	270	375	42	30	232	20

Additional food needs to support consumption for Mali, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent						
Consumption						
1989/90	165	38	0	0	101	23
1990/91	198	40	0	0	50	10
Stock adjustment						
1989/90			(14)	(3)	(14)	(3)
1990/91			4	1	4	1
Total						
1989/90			0	0	87	20
1990/91			0	0	55	11
Maximum absorbable						
Cereal equivalent						
1989/90			0	0	87	20
1990/91			0	0	55	11

Mauritania

An above average harvest was expected in Mauritania, reflecting early and abundant rains in July and August. However, sharply lower rainfall in September slightly reduced yield. Area planted declined for 1988 partly because of disruptions to farming caused by the expulsion of Senegalese agriculturalists living on the Mauritanian side of the Senegal River. In addition, the rice campaign started late this year, and it is likely that only part of the irrigated perimeters were planted. Higher yields are expected to boost millet and sorghum production to slightly above last year's output. Grain production during the last 4 years (1986-1989) has averaged 140,000 tons a year, almost five times the average of the previous 4 drought years. Losses attributable to locusts and grasshoppers are low. September rainfall was sufficient to keep range lands green and prevent grasshoppers from moving into cultivated areas. Pasture conditions are good throughout the country.

Real GDP growth fell from 5.4 percent in 1986 to 2.5 percent in 1988, reflecting variations in economic activity in agriculture, fishing, and iron ore mining. Iron ore mining suffered from the depressed world market and technical difficulties in bringing a new mine on stream. The situation improved somewhat in 1988 and iron ore production recovered strongly. The current account balance, which recorded deficits of more than 20 percent of GDP between 1982 and 1984, has steadily improved to a deficit of only 6 percent in 1988.

Mauritania's import requirements of 192,000 tons are slightly below average grain imports of recent years. The largest import needs are for wheat (160,000 tons) and rice (80,000). A coarse grain surplus partially offsets these needs.

This analysis does not include the needs of the estimated 100,000 returnees from Senegal.

While many of the Senegalese who left were farmers, the Mauritanians who returned were not. These displaced persons will require assistance in meeting their basic needs through at least early 1990. In addition, food-for-work programs are planned for some of the 80,000 Mauritanians who were dependent on remittances from relatives in Senegal.

Mauritania basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	77	0	179	256	0	162	Wheat	16.0
1982/83	18	0	282	250	0	154	Rice	14.1
1983/84	28	50	294	302	0	181	Corn	1.2
1984/85	16	70	266	302	0	177	Millet	17.0
1985/86	52	50	195	272	0	155	Total	48.2
1986/87	111	25	212	313	0	173		
1987/88	162	35	213	345	0	185		
1988/89	140	65	210	355	0	185		
1989/90	151	60						
1990/91	164	60						

Import requirements for Mauritania

Commodity/year	Production	Total use: Status quo	Total use: Nutrition-based	Import requirements: Status quo	Import requirements: Nutrition-based	Import requirements: Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	151	343	320	192	169	225
1990/91	164	353	331	189	167	223

Financial indicators for Mauritania, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available: Total	Foreign exchange available: Share to major food imports
	$ million					Percent
1981	270	386	54	162	216	15
1982	240	427	38	139	202	18
1983	315	378	37	106	278	19
1984	294	302	43	78	251	17
1985	372	334	78	59	294	14
1986	419	401	77	48	342	13
1987	402	359	86	72	316	17
1988	410	360	193	44	217	
1989	425	370	80	45	333	14
1990	425	380	80	45	332	14

Additional food needs to support consumption for Mauritania, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent						
Consumption						
1989/90	104	24	88	20	65	15
1990/91	116	24	73	15	51	10
Stock adjustment						
1989/90			(2)	(0)	(2)	(0)
1990/91			2	0	2	0
Total						
1989/90			86	20	63	15
1990/91			75	16	52	11
Maximum absorbable						
Cereal equivalent						
1989/90			86	20	63	15
1990/91			75	16	52	11

Niger

Rainfall has been very uneven in Niger this year. Zones of poor crop stands are interspersed with zones of good crop stands. In addition, late and scattered rains, followed by late planting, aggravated the situation. Generally rainfall was near normal in the extreme south and west, but below normal in the northern and eastern producing regions. Areas in northern Tillabery and Zinder departments and much of Diffa are most seriously affected by drought. Good rains in early August improved growing conditions, but likely arrived to late to enable July-planted crops to reach their full yield potential. Rainfall continued sporadically into September but did not significantly alter harvest prospects. Grasshopper infestations reportedly covered almost 500,000 hectares in eastern and central Niger by mid-October. Aerial and ground control operations have treated about half of the infested area.

Niger's economic activity rebounded in 1988, with real GDP increasing 11 percent. This sharp recovery was due to the remarkable performance of the agricultural sector whose real value added grew by more than 60 percent following abundant rainfall in 1988. This increase more than offset declines in economic activity in industry, construction, public works, and commerce. In the external sector, declining prices for uranium, Niger's major export, have contributed to lower export earnings in recent years. Niger's 1989 debt service obligations were rescheduled in late 1988, thereby freeing some of the country's foreign exchange reserves for essential imports.

Niger's import requirements for 1989/90 are expected to increase sharply to 134,000 tons, reflecting the reduced 1989 harvest. In addition to 35,000 to 40,000 tons each of wheat and rice, Niger will require 60,000 tons of sorghum to meet historical consumption levels. A drawdown of carryover stocks from the record 1988 harvest reduces estimated additional needs to 30,000 tons. Niger's commercial import capacity remains about the same as last year despite higher grain prices due to the increased share of foreign exchange allocated to food imports.

Niger basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	1,664	260	107	1,796	0	312	Wheat	1.8
1982/83	1,680	235	77	1,792	0	302	Rice	4.3
1983/84	1,719	200	40	1,774	0	289	Millet and	
1984/85	1,056	185	178	1,384	0	218	sorghum	61.7
1985/86	1,818	35	54	1,737	0	265	Total	67.8
1986/87	1,795	170	62	1,807	0	267		
1987/88	1,406	220	106	1,682	0	241		
1988/89	2,421	50	60	2,276	0	315		
1989/90	1,842	255						
1990/91	1,894	255						

Import requirements for Niger

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	1,842	1,976	2,298	134	456	508
1990/91	1,894	2,041	2,370	147	476	532

Financial indicators for Niger, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available Total	Foreign exchange available Share to major food imports
	$ million					Percent
1981	485	592	63	105	422	9
1982	381	515	110	30	271	14
1983	335	332	72	53	263	15
1984	303	270	63	89	240	5
1985	259	346	62	136	197	6
1986	330	364	83	189	247	7
1987	361	401	107	249	254	10
1988	325	385	137	232	188	
1989	310	400	77	185	202	8
1990	325	410	81	185	208	8

Additional food needs to support consumption for Niger, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent						
Consumption						
1989/90	24	8	110	38	432	151
1990/91	28	9	119	37	448	139
Stock adjustment						
1989/90			(80)	(28)	(80)	(28)
1990/91			18	0	0	0
Total						
1989/90			30	10	352	123
1990/91			119	37	448	139
Maximum absorbable						
Cereal equivalent						
1989/90			30	10	352	123
1990/91			119	37	448	139

Senegal

Rainfall during the 1989 growing season has been above normal and regularly distributed in most regions of Senegal. Good rains fell from June through early September in eastern and southern regions. Serious drought developed in the north during late July and early August, and abundant rains later in the month were too late to completely offset losses in yields of millet, sorghum, and peanuts. Overall grain production is expected to be up significantly from 1988's poor harvest. Yields should be above average in the south and east and near average in the central region. Planting of irrigated rice in the Senegal River valley was delayed because of difficulties with land preparation and water pumping. Rice area in the Casamance increased due to abundant water supplies.

The lower producer price and removal of input subsidies for peanuts caused some farmers to favor millet, sorghum, and corn over peanuts. Locust infestations were reported in some areas, but control operations are underway.

Senegal basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81	
							Commodity coverage	Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	884	80	497	1,281	0	217	Wheat	6.3
1982/83	730	180	568	1,303	0	214	Rice	26.6
1983/84	465	175	678	1,192	0	190	Corn	4.3
1984/85	660	125	523	1,233	0	191	Millet	25.8
1985/86	1,195	75	536	1,591	0	239	Total	62.9
1986/87	841	215	432	1,408	0	205		
1987/88	1,006	80	491	1,452	0	206		
1988/89	814	125	567	1,451	0	199		
1989/90	1,045	55						
1990/91	1,038	55						

Import requirements for Senegal

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	1,045	1,547	1,597	502	552	910
1990/91	1,038	1,595	1,639	557	601	973

Financial indicators for Senegal, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	561	1,020	90	9	471	34
1982	502	815	43	11	459	28
1983	606	917	57	12	549	22
1984	598	819	84	4	514	31
1985	503	796	86	5	417	21
1986	594	856	207	9	387	24
1987	648	907	274	9	374	19
1988	777	1,020	330	11	447	
1989	801	1,004	217	12	586	21
1990	800	1,000	217	12	586	21

Additional food needs to support consumption for Senegal, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent						
Consumption						
1989/90	384	90	118	28	168	39
1990/91	430	89	127	26	171	35
Stock adjustment						
1989/90			15	3	15	3
1990/91			10	2	10	2
Total						
1989/90			133	31	183	43
1990/91			137	29	181	38
Maximum absorbable						
Cereal equivalent						
1989/90			133	31	183	43
1990/91			137	29	181	38

Burundi

Cereal output in 1989/90 will fall from last year's excellent harvest due to excessive rains and plant diseases which reduced yields. Import requirements for 1989/90 are estimated at 47,000 tons, almost one-half of which is wheat. With commercial imports of 12,000 tons, additional food needs for 1989/90 are estimated at 35,000 tons. A drop in coffee prices has reduced Burundi's export earnings and its commercial import capacity. Coffee earnings account for almost 90 percent of Burundi's total export earnings.

The current decline in cereal output is due to weather. However, agriculture in Burundi is lagging. Burundi's Five Year Economic and Social Development Plan (1988-92) places a strong emphasis on the agricultural sector in order to meet the food needs of a rapidly growing population. Objectives include producing adequate levels of export crops to meet foreign exchange needs and raising farmers' incomes to aid in the development of rural areas. The government has instituted a program aimed at increasing the quantity and improving the quality of coffee. Measures taken to achieve this goal include free distribution of seedlings, pesticides, and fertilizer. The government hopes to double the number of productive trees between 1986 and 1993.

Burundi basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	332	0	20	352	0	84	Wheat	1.5
1982/83	314	0	20	334	0	78	Corn	11.1
1983/84	326	0	18	344	0	77	Sorghum	11.0
1984/85	278	0	25	303	0	66	Millet	0.8
1985/86	331	0	23	354	0	75	Cassava	15.2
1986/87	347	0	22	369	0	76	Sweet	18.7
1987/88	359	0	21	380	0	76	potatoes	58.4
1988/89	385	0	24	409	0	79	Total	
1989/90	362	0						
1990/91	372	0						
Roots								
1981/82	900	0	0	900	0	215		
1982/83	900	0	0	900	0	210		
1983/84	946	0	0	946	0	212		
1984/85	1,028	0	0	1,028	0	224		
1985/86	1,040	0	0	1,040	0	220		
1986/87	1,165	0	0	1,165	0	240		
1987/88	1,170	0	0	1,170	0	234		
1988/89	1,270	0	0	1,270	0	246		
1989/90	1,200	0						
1990/91	1,250	0						

Import requirements for Burundi

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	362	395	439	33	77	85
1990/91	372	407	452	35	80	89
Roots						
1989/90	1,200	1,253	2,171	53	971	108
1990/91	1,250	1,291	2,240	41	990	98
Cereal equivalent						
1989/90	695	742	1,030	47	335	88
1990/91	719	764	1,061	46	342	88

Financial indicators for Burundi, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	75	110	5	61	70	6
1982	88	115	6	29	82	12
1983	81	110	8	27	73	7
1984	103	145	17	20	86	0
1985	114	150	23	29	91	8
1986	129	165	31	69	98	6
1987	98	159	42	61	56	7
1988	124	166	46	69	78	
1989	110	160	29	110	134	7
1990	110	160	29	110	134	7

Additional food needs to support consumption for Burundi, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent						
Consumption						
1989/90	12	6	35	18	323	169
1990/91	13	6	33	15	329	154
Stock adjustment						
1989/90			0	0	0	0
1990/91			0	0	0	0
Total						
1989/90			0	0	0	0
1990/91			0	0	0	0
Maximum absorbable						
Cereal equivalent						
1989/90			35	18	77	40
1990/91			33	15	76	35

Ethiopia

Famine conditions are likely before the year's end and last until the October 1990 harvest in most of Eritrea and the northern and eastern parts of Tigray. In Eritrea, the main season rains, which usually begin by early June, began in early August. However, they were quite sporadic and ceased by the end of the month, which delayed plantings or destroyed early planted crops. As a result, there has been almost a complete crop failure with cereal production estimated at about 40,000 tons, which is only 20 percent of normal. In Tigray, not much information is available because the region is inaccessible. Satellite data indicate that the rainfall and crop situation is better than in Eritrea, with production estimated at 200,000 tons, about 75 percent of normal.

Assessing food needs, estimating the number of people at risk, and distributing food has been extremely difficult due to continuing civil strife which has limited accessibility to the northern regions. The number of people receiving relief assistance is expected to increase to 2 million by the middle of 1990. Foods needs in these northern regions are expected to reach 300,000 tons until the next harvest in October 1990.

Fortunately, Eritrea and Tigray are not the major food producing regions in the country. In a normal year, their production accounts for approximately 10 percent of the country's output. In the main crop producing regions, normal levels of rainfall have been reported and harvests are expected to be good.

Total cereal production for 1989/90 is estimated to fall 10 to 15 percent below last year's bumper crop of almost 7 million tons. Cereal import requirements for 1989/90 are estimated at 950,000 tons, 80 percent of which is wheat.

Ethiopia's commercial import capacity is limited by low foreign exchange holdings, a result of poor export earnings. Prospects for increases in coffee earnings, which account for about 60 percent of total earnings, are poor. Productivity in the coffee sector is low because of aging trees, coffee berry disease, lack of producer incentives, and little participation of producers in the decisionmaking process. Area devoted to coffee is not likely to expand as most producing regions are in food deficit areas. Most likely, coffee area will be replaced by food crops.

In addition, the World Bank estimates that Ethiopia's coffee revenues may be cut in half because of the replacement of the International Coffee Agreement's quota system with a free market system. Therefore, the financial situation may deteriorate and the commercial import capacity may be cut further.

Considering a limited commercial import capacity of 71,000 tons and a stock drawdown of 375,000 tons, Ethiopia's additional food needs are estimated at 504,000 tons for 1989/90.

Ethiopia basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	5,324	420	303	5,670	172	149	Wheat	9.1
1982/83	6,649	205	323	6,562	160	168	Corn	15.3
1983/84	5,749	455	496	6,093	187	152	Barley	9.6
1984/85	4,450	420	898	5,189	176	126	Sorghum	15.9
1985/86	5,245	403	1,321	5,937	122	139	Millet	2.0
1986/87	5,750	910	665	6,229	172	142	Teff	15.5
1987/88	5,000	924	1,040	5,891	178	130	Total	67.6
1988/89	6,990	895	425	6,857	178	146		
1989/90	6,095	1,275						
1990/91	5,725	1,275						

Import requirements for Ethiopia

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	6,095	7,045	9,605	950	3,510	2,251
1990/91	5,725	7,273	9,863	1,548	4,138	2,891

Financial indicators for Ethiopia, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	374	630	42	267	332	2
1982	403	675	54	182	349	1
1983	403	740	68	126	335	2
1984	417	798	84	44	333	10
1985	333	841	107	148	226	7
1986	477	933	157	251	320	16
1987	360	900	180	144	180	0
1988	390	825	180	86	210	
1989	325	850	110	100	162	8
1990	400	900	135	100	203	8

Additional food needs to support consumption for Ethiopia, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent						
Consumption						
1989/90	71	18	879	217	3,439	851
1990/91	99	22	1,448	320	4,038	892
Stock adjustment						
1989/90			(375)	(93)	(375)	(93)
1990/91			0	0	0	0
Total						
1989/90			504	125	3,064	759
1990/91			1,448	320	4,038	892
Maximum absorbable						
Cereal equivalent						
1989/90			504	125	1,805	447
1990/91			1,448	320	2,792	617

Kenya

Good weather, improved price incentives, and increased availability of inputs resulted in a record grain harvest in Kenya in 1988/89. The incentive system remains intact for 1989/90 as producer prices for the 1989/90 crop have been increased further, 40 percent for wheat and 10 percent for corn. The 1989-93 Development Plan supports the government's commitment to liberalize grain marketing and reduce the role of the National Cereals and Produce Board to buyer of last resort and holder of strategic reserves. This will allow for a greater role for the Kenya Grain Growers Cooperative Union in marketing grains.

Cereal output for 1989/90 is expected to be slightly lower than last year's bumper harvest of approximately 3.4 million tons. Wheat imports are estimated at 264,000 tons. Corn production is estimated at 2.8 million tons, and exports are expected to be more than 100,000 tons. Total cereal import requirements for 1989/90 are estimated at 189,000 tons. With a commercial import capacity of more than 80,000 tons, and an increase in stocks, additional cereal needs come to 165,000 tons.

Although tourism rather than coffee is now Kenya's number one foreign exchange earner, coffee still accounts for around 30 percent of export earnings. Low international coffee prices, coupled with increasing costs of production, have reduced profit margins. As a result, many farmers wish to plant other crops, but the government is not allowing any uprooting of trees. Removal of quotas will ease the burden of record stock levels, but prices received for the coffee will be low. Since the suspension of the International Coffee Agreement in July, international prices have fallen 50 percent. The World Bank has constructed a model to determine the financial implications of a continuing the quota systems vis a vis a return to the free market. The results indicate that coffee earnings in Kenya, could fall 13 percent in 1990 under a free market system, further limiting commercial import capacity.

Kenya basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	2,585	231	340	2,472	82	147	Wheat	6.0
1982/83	2,675	602	96	2,538	91	145	Rice	0.9
1983/84	2,363	744	77	2,670	76	145	Corn	40.2
1984/85	1,924	438	905	2,653	72	138	Sorghum	3.3
1985/86	3,196	542	112	2,901	84	145	Millet	2.1
1986/87	3,284	865	(69)	2,785	111	135	Cassava	5.6
1987/88	2,842	1,184	141	3,049	99	141	Sweet	2.2
1988/89	3,362	1,019	95	3,195	99	141	potatoes	1.3
1989/90	3,296	1,182					Potatoes	61.7
1990/91	3,296	1,182					Total	
Roots								
1981/82	1,386	0	0	1,386	0	80		
1982/83	1,560	0	0	1,560	0	86		
1983/84	1,365	0	0	1,365	0	72		
1984/85	1,525	0	0	1,525	0	77		
1985/86	1,630	0	0	1,630	0	79		
1986/87	1,670	0	0	1,670	0	78		
1987/88	1,688	0	0	1,688	0	75		
1988/89	1,760	0	0	1,760	0	75		
1989/90	1,750	0						
1990/91	1,750	0						

Import requirements for Kenya

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	3,296	3,440	4,393	144	1,097	278
1990/91	3,296	3,588	4,561	292	1,265	431
Roots						
1989/90	1,750	1,886	2,272	136	522	344
1990/91	1,750	1,967	2,353	217	603	434
Cereal equivalent						
1989/90	3,883	4,072	5,193	189	1,310	346
1990/91	3,883	4,247	5,390	365	1,508	528

Financial indicators for Kenya, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	1,081	1,834	294	231	787	7
1982	935	1,468	338	212	597	12
1983	927	1,198	321	376	606	12
1984	1,035	1,348	359	390	676	12
1985	943	1,331	407	391	536	15
1986	1,171	1,455	432	413	739	9
1987	909	1,623	502	256	407	16
1988	1,020	1,500	591	264	429	
1989	900	1,450	382	325	518	13
1990	1,050	1,450	446	325	604	13

Additional food needs to support consumption for Kenya, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent						
Consumption						
1989/90	82	17	108	23	1,228	259
1990/91	107	20	258	48	1,401	264
Stock adjustment						
1989/90			57	12	57	12
1990/91			53	10	53	10
Total						
1989/90			165	35	1,285	271
1990/91			311	59	1,454	274
Maximum absorbable						
Cereal equivalent						
1989/90			165	35	322	68
1990/91			311	59	475	89

Rwanda

Despite above average planted areas and sufficient rainfall, a near average cereal harvest of 350,000 tons is expected for 1989/90. This is due to shortages of farm inputs, particularly seeds, herbicides, and insecticides. It is estimated that 45,000 tons of cereal imports will be needed to meet consumption requirements. As Rwanda has almost no capacity to import commercially and no stocks to draw on, these requirements are essentially additional food needs.

Rwanda basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	282	0	16	298	0	54	Wheat	0.6
1982/83	310	0	16	326	0	57	Corn	5.6
1983/84	336	0	23	359	0	61	Sorghum	3.3
1984/85	254	0	43	297	0	49	Cassava	17.0
1985/86	323	0	26	349	0	55	Sweet	21.2
1986/87	349	0	15	364	0	55	potatoes	9.8
1987/88	334	0	14	348	0	51	Plantains	57.4
1988/89	354	0	15	369	0	52	Total	
1989/90	350	0						
1990/91	360	0						
Roots								
1981/82	3,816	0	0	3,816	0	697		
1982/83	3,998	0	0	3,998	0	703		
1983/84	4,251	0	0	4,251	0	719		
1984/85	3,037	0	0	3,037	0	496		
1985/86	3,450	0	0	3,450	0	544		
1986/87	3,324	0	0	3,324	0	506		
1987/88	3,319	0	0	3,319	0	487		
1988/89	3,390	0	0	3,390	0	480		
1989/90	3,680	0						
1990/91	3,600	0						

Import requirements for Rwanda

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	350	391	382	41	32	95
1990/91	360	406	396	46	36	102
Roots						
1989/90	3,680	3,692	5,008	12	1,328	1,586
1990/91	3,600	3,834	5,087	234	1,487	1,868
Cereal equivalent						
1989/90	1,470	1,516	1,970	45	500	597
1990/91	1,456	1,574	2,013	118	557	691

Financial indicators for Rwanda, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	113	207	4	173	109	2
1982	109	215	5	128	104	2
1983	124	198	8	111	117	1
1984	143	198	10	107	133	1
1985	126	219	15	113	111	11
1986	184	259	18	162	166	5
1987	121	267	20	164	101	6
1988	118	279	25	118	93	
1989	110	270	12	85	36	7
1990	130	270	15	85	53	7

Additional food needs to support consumption for Rwanda, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent						
Consumption						
1989/90	1	1	44	30	499	337
1990/91	2	1	116	70	555	335
Stock adjustment						
1989/90			0	0	0	0
1990/91			0	0	0	0
Total						
1989/90			44	30	499	337
1990/91			116	70	555	335
Maximum absorbable						
Cereal equivalent						
1989/90			44	30	499	337
1990/91			116	70	555	335

Sudan

Cereal output for 1989/90 is expected to be near normal, but well below last year's record harvest of more than 5 million tons. Rains have been adequate and locusts do not appear to be a problem. Despite last year's excellent harvest and prospects for an average crop this year, Sudan will need to import an estimated 771,000 tons of wheat to meet consumption requirements. The 1988/89 bumper sorghum crop of 4.4 million tons allowed for exports of approximately 700,000 tons, and the same is expected for 1989/90.

Food distribution remains a severe problem in the south. In an effort to address this problem, the United Nations instituted "Operation Lifeline" which, supported by the government, has the objective to deliver food and relief supplies to the civilian populations on both sides of the civil conflict. Deliveries are made by flights from Khartoum, and the movement of barges on the Nile has also been approved.

Sudan basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81	
							Commodity coverage	Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	3,981	234	175	3,402	318	191	Wheat	7.9
1982/83	2,453	670	182	2,810	198	150	Rice	0.3
1983/84	2,324	297	451	2,785	197	144	Corn	0.8
1984/85	1,382	90	1,595	2,802	90	135	Sorghum	33.2
1985/86	4,169	175	560	3,812	217	180	Millet	9.5
1986/87	3,767	875	(6)	3,168	258	148	Peanuts	11.9
1987/88	1,673	1,210	32	2,395	240	112	Total	63.7
1988/89	5,147	280	(80)	3,517	240	156		
1989/90	3,522	1,590						
1990/91	3,822	1,590						
Peanuts								
1981/82	838	10	(100)	698	0	36		
1982/83	492	50	(70)	442	0	22		
1983/84	413	30	(45)	388	0	19		
1984/85	386	10	0	386	0	18		
1985/86	274	10	0	274	0	12		
1986/87	379	10	0	379	0	16		
1987/88	360	10	(29)	331	0	14		
1988/89	385	10	0	385	0	16		
1989/90	375	10						
1990/91	375	10						

Import requirements for Sudan

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	3,522	3,522	4,092	(0)	570	1,157
1990/91	3,822	3,598	4,207	(224)	385	958
Peanuts						
1989/90	375	372	582	(3)	207	543
1990/91	375	380	589	5	214	562
Cereal equivalent						
1988/89	3,897	3,893	4,674	(4)	777	1,660
1989/90	4,197	3,977	4,797	(220)	600	1,480

Financial indicators for Sudan, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	793	1,634	145	17	648	8
1982	401	750	115	21	286	22
1983	514	703	98	17	416	11
1984	519	600	84	17	435	4
1985	444	579	112	12	332	24
1986	327	634	207	59	120	42
1987	265	695	48	12	217	27
1988	427	949	100	12	327	
1989	500	1,000	154	44	357	31
1990	500	1,000	154	44	357	31

Additional food needs to support consumption for Sudan, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent						
Consumption						
1989/90	77	18	0	0	700	160
1990/91	86	18	0	0	514	105
Stock adjustment						
1989/90			(96)	(22)	(96)	(22)
1990/91			32	7	32	7
Total						
1989/90			0	0	604	138
1990/91			0	0	546	112
Maximum absorbable						
Cereal equivalent						
1990/91						
1988/89			0	0	604	138
1989/90			0	0	546	112

Zaire

Prospects for Zaire's 1989/90 cereal output are good. Abundant rain fell in the south, benefiting the major corn crop. Corn output is expected to exceed the recent average and approach 800,000 tons. Despite timely rains in the north during planting season, rice output is not expected to improve. The recent decline in production can be attributed to the lack of inputs, inadequate production incentives, and limited credit availability. Zaire's rice yields are among the lowest in Africa as seeds have gone unreplenished for the last 5 years.

Import requirements of 515,000 tons are estimated to meet consumption demands in 1989/90. Wheat imports account for about one-half of the total. It is estimated that Zaire will be able to import almost 200,000 tons of cereals commercially in 1989/90. This estimate may increase as the financial situation improves with the recent recovery of world copper prices. Copper earnings contribute almost 40 percent of total export earnings. Additional food needs are estimated at 323,000 tons, including a small stock adjustment.

Zaire basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	852	60	325	1,184	0	43	Wheat	2.1
1982/83	884	53	309	1,195	0	42	Rice	3.1
1983/84	907	51	333	1,249	0	43	Corn	8.9
1984/85	934	42	345	1,243	0	42	Millet and sorghum	0.4
1985/86	933	78	317	1,277	0	42	Cassava	56.0
1986/87	946	51	378	1,310	0	42	Total	70.4
1987/88	946	65	427	1,372	0	42		
1988/89	989	66	389	1,389	0	42		
1989/90	1,020	55						
1990/91	1,015	55						
Roots								
1981/82	12,650	0	0	12,650	0	463		
1982/83	13,125	0	0	13,125	0	465		
1983/84	13,450	0	0	13,450	0	464		
1984/85	12,925	0	0	12,925	0	436		
1985/86	13,600	0	0	13,600	0	445		
1986/87	14,000	0	0	14,000	0	446		
1987/88	14,400	0	0	14,400	0	445		
1988/89	14,800	0	0	14,800	0	445		
1989/90	15,250	0						
1990/91	15,300	0						

Import requirements for Zaire

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	1,020	1,454	1,418	434	398	488
1990/91	1,015	1,498	1,456	483	441	538
Roots						
1989/90	15,250	15,483	15,833	233	583	677
1990/91	15,300	15,958	16,288	658	988	1,116
Cereal equivalent						
1989/90	6,342	6,857	6,944	515	601	714
1990/91	6,355	7,068	7,141	713	786	917

Financial indicators for Zaire, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	1,678	1,421	194	152	1,484	10
1982	1,601	1,297	135	39	1,466	4
1983	1,686	1,213	181	102	1,505	4
1984	1,918	1,176	312	137	1,606	2
1985	1,853	1,187	338	190	1,515	5
1986	1,844	1,283	280	269	1,564	ERR
1987	1,744	1,395	247	181	1,497	ERR
1988	2,207	1,644	350	187	1,857	
1989	2,200	1,650	351	136	1,737	ERR
1990	2,400	1,650	383	136	1,905	ERR

Additional food needs to support consumption for Zaire, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent						
Consumption						
1989/90	197	51	318	82	404	105
1990/91	242	56	471	109	544	126
Stock adjustment						
1989/90			5	1	5	1
1990/91			2	1	2	1
Total						
1989/90			323	84	409	106
1990/91			473	109	546	126
Maximum absorbable						
Cereal equivalent						
1989/90			323	84	409	106
1990/91			473	109	546	126

South Asia

Afghanistan

The pullout of Soviet troops from Afghanistan was completed in early 1989; however, there has been no new official data on agricultural and economic conditions. Continued fighting between the Soviet-supported Afghan government and U.S.-supported mujaheddin guerillas has discouraged most refugees from returning to Afghanistan, with more than 5 million Afghanis still living in Pakistan and Iran. Escalating food prices, fuel rationing and fears of severe shortages this winter are prompting many to migrate from Kabul to the countryside and relief centers.

Total cereal production during 1989/90 is estimated at 3.8 million tons, 3 percent below 1988/89. Despite average weather, the Swedish Committee for Afghanistan reports that locusts have damaged the wheat crops in the northwestern provinces, resulting in losses of at least 80,000 tons. The locust population has grown unabated since the Soviet incursion in 1978, when the Afghani Government discontinued its annual insecticide applications. In addition, the shortage of man- and draft power, combined with the deterioration of the country's irrigation systems, has curbed fall plantings, and compelled farmers to increase area planted during the rainfed spring season when locusts are more prevalent.

Largely because of the expected drop in cereal output, status quo cereal import requirements in 1989/90 are estimated to have risen significantly from earlier estimates to 785,000 tons. Even with a recovery in cereal production in 1990/91, cereal import needs are forecast to rise to 848,000 tons to maintain status quo consumption. Estimated nutrition-based import requirements for each year are lower at 429,000 tons and 471,000 tons, respectively. The ability of the Afghani Government to offset crop shortfalls by importing food commercially is estimated to be negligible. Roughly 350,000 tons of wheat is estimated to have been provided concessionally each year during the 1980s, largely from the Soviet Union. Additional needs are indicated to cover virtually all of the estimated status quo and nutrition-based cereal import requirements during 1989/90 and 1990/91.

Afghanistan basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	3,957	0	368	4,325	0	307	Wheat	49.7
1982/83	3,971	0	352	4,323	0	317	Rice	7.3
1983/84	3,968	0	365	4,333	0	316	Corn	14.6
1984/85	3,861	0	365	4,226	0	306	Total	71.7
1985/86	4,022	0	365	4,387	0	316		
1986/87	3,982	0	365	4,347	0	311		
1987/88	3,859	0	365	4,224	0	298		
1988/89	3,942	0	365	4,307	0	297		
1989/90	3,810	0						
1990/91	3,985	0						

Import requirements for Afghanistan

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	3,810	4,595	4,239	785	429	888
1990/91	3,985	4,833	4,456	848	471	956

Financial indicators for Afghanistan, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	694	886	118	274	576	1
1982	708	962	134	258	574	1
1983	729	1,064	120	214	609	1
1984	633	1,390	126	229	507	3
1985	557	1,194	76	295	481	2
1986	552	1,404	86	259	466	3
1987	512	996	91	280	421	2
1988	575	1,000	91	261	484	
1989	585	1,050	80	250	505	3
1990	600	1,100	90	240	488	3

Additional food needs to support consumption for Afghanistan, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent						
Consumption						
1989/90	1	0	783	226	427	123
1990/91	2	0	846	218	469	121
Stock adjustment						
1989/90			0	0	0	0
1990/91			0	0	0	0
Total						
1989/90			783	226	427	123
1990/91			846	218	469	121
Maximum absorbable						
Cereal equivalent						
1989/90			783	226	427	123
1990/91			846	218	469	121

Bangladesh

Based on expectations for bumper rice crops, total cereal production in 1989/90 is estimated at a record 17.3 million tons, 4 percent above 1988/89. Late monsoon rains in September have been beneficial to the 1989 aman crop (fall harvested) and are expected to offset the erratic and inadequate rains during July and August. In addition, the irrigated 1990 boro crop (spring harvested) is forecast to be a record, as government efforts to expand area continue. As a result, area devoted to wheat is likely to decline, with production estimated to drop 20 percent to 838,000 tons. Only marginal growth is forecast in 1989/90 vegetable oil output.

To maintain status quo consumption in 1989/90, cereal import requirements of 3.0 million tons are estimated. The volume of cereals necessary to close the nutrition gap is estimated at 6.5 million tons; however, Bangladesh's maximum absorbable capacity is estimated at only 3.9 million tons.

The absence of severe flooding that has characterized Bangladesh for the past 2 years is enabling the economy to post rapid growth in 1989. Bangladesh's commercial import capacity will remain weak through 1990/91, however, as the country's chronic trade deficit deteriorates and likely lowers international reserves. Two leading exports of Bangladesh, Jute products and garments, have faltered, while imports are climbing. Dependence on foreign assistance to finance the budgetary deficit and imports necessary for development has resulted in a steady accumulation of foreign debt, although the terms are highly con-

cessional.

Additional needs to support status quo consumption in 1989/90 are estimated at 2.1 million tons, while the country could likely absorb only three-quarters of the estimated nutrition-based needs of 5.1 million tons. In addition, the stock adjustment calculation suggests 31,000 tons for stock building in 1989/90.

Assuming normal weather, preliminary projections for 1990/91 call for further expansion in Bangladesh cereal production and stable vegetable oil output. With these estimates, additional cereal needs are nearly unchanged from 1989/90.

Bangladesh basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	14,598	1,252	1,235	16,470	0	182	Wheat	8.8
1982/83	15,311	615	1,817	17,117	0	184	Rice	76.3
1983/84	15,710	626	2,056	17,592	0	183	Vegetable oils	2.2
1984/85	16,084	800	2,588	18,455	0	187	Total	87.3
1985/86	16,082	1,017	1,203	17,326	0	171		
1986/87	16,497	976	1,761	18,490	0	177		
1987/88	16,504	744	3,021	18,984	0	177		
1988/89	16,598	1,285	2,400	19,075	0	173		
1989/90	17,338	1,208						
1990/91	17,700	1,208						
Vegetable oils								
1981/82	52	53	133	187	0	2		
1982/83	53	51	116	157	0	2		
1983/84	55	63	154	193	0	2		
1984/85	111	79	220	277	0	3		
1985/86	104	133	307	367	0	4		
1986/87	114	177	337	418	0	4		
1987/88	111	210	307	396	0	4		
1988/89	123	232	320	435	0	4		
1989/90	120	240						
1990/91	120	240						

Import requirements for Bangladesh

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	17,338	20,357	23,812	3,019	6,474	3,850
1990/91	17,700	20,879	24,400	3,179	6,700	4,030
Vegetable oils						
1989/90	120	381	229	261	109	333
1990/91	120	391	234	271	114	344

Financial indicators for Bangladesh, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	1,298	2,818	214	122	1,084	14
1982	1,545	2,589	263	358	1,282	15
1983	1,717	2,665	280	539	1,437	1C
1984	1,697	3,011	415	381	1,282	19
1985	1,666	2,749	470	460	1,196	33
1986	2,067	3,033	577	686	1,490	15
1987	2,329	3,441	525	821	1,804	15
1988	2,436	3,698	572	886	1,864	
1989	2,540	3,800	525	890	2,066	21
1990	2,675	4,030	550	875	2,110	21

Additional food needs to support consumption for Bangladesh, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent Consumption						
1989/90	514	102	2,104	417	5,123	1,014
1990/91	588	104	2,096	370	5,143	909
Stock adjustment						
1989/90			31	6	31	6
1990/91			20	4	20	4
Total						
1989/90			2,135	423	5,154	1,021
1990/91			2,116	374	5,163	912
Vegetable oils						
1989/90	401	227	0	0	0	0
1990/91	434	232	0	0	0	0
Total						
1989/90		329		423		1,021
1990/91		336		374		912
Maximum absorbable						
Cereal equivalent						
1989/90			2,135	423	2,530	501
1990/91			2,116	374	2,493	440
Vegetable oils						
1989/90			0	0	0	0
1990/91			0	0	0	0
Total						
1989/90				423		501
1990/91				374		440

India

Current estimates indicate that 1989/90 cereal production will be up 1-2 percent from the record 1988/89 outturn, benefiting from generally favorable weather, strengthened price incentives, and government promotion efforts. The 1989 wheat harvest is estimated at a record 51 million tons, up 13 percent from 1988 and 8 percent from the previous record, following several years of disappointing harvests resulting from dry weather. Also benefiting from improved winter moisture conditions, the 1989 pulse crop recovered to a record of about 13.5 million tons. The 1989/90 rice crop is currently estimated at 66 million tons, down slightly from the record-shattering 1988/89 outturn of 70 million tons. Monsoon rainfall was not as favorable in some areas of eastern India in 1989, although some sources indicate that the 1989/90 crop could be larger than currently estimated.

The 1990 wheat crop, to be harvested during April-May, is projected to be up from 1989, although this outcome depends on winter weather conditions. Although soil moisture is less than optimal in some areas, wheat prices are relatively strong and supplies of fertilizer, seed, and irrigation water are good. However, the 1990 pulse crop, grown principally on rainfed land, is projected to be down from the 1989 record because of dry soil conditions in some regions.

Production of oilseeds and oils shattered previous records in 1988/89, because of a combination of good weather, strong prices, and government promotion efforts. Domestic vegetable oil output was an estimated 4.57 million tons, 34 percent above 1987/88 and 21 percent above the previous record, driven by record crops of peanuts, rapeseed, and soybeans. Although weather has not been as favorable in 1989, oilseed and edible oil production are forecast to remain large in 1989/90 because of continued high prices and plantings. Edible oil production during 1989/90 is forecast at 4.3 million tons, down slightly from 1988/89.

Government stocks of wheat and, particularly, rice remain at precariously low levels. Government wheat stocks were about 9.6 million tons in July 1989, up from 7.6 million a year earlier because of 1.9 million tons of imports, but still well below target. Rice stocks continued to decline, despite imports, falling from 4.2 million tons in July 1988 to about 3.6 million in 1989. Total wheat and rice stocks remain well below the food security target of 21 million tons, despite larger harvests, because relatively high market cereal prices have hampered government procurement while maintaining demand for subsidized grain through the Public Distribution System. Although another good crop in 1989/90 will likely allow some stock building from domestic production, the food security position is likely to remain fragile without additional imports. Commercial imports of food grains to replenish stocks during 1988/89 were limited to about 1.9 million tons of wheat and 600,000 tons of rice. Despite very low stocks that threaten domestic price stability, the Government has adopted a policy of minimizing imports, apparently because of an abnormally tight foreign exchange situation.

With another good production year forecast, it is estimated that no cereal imports are needed in 1989/90 to meet status quo cereal consumption. Nutrition-based import requirements are estimated at 5.1 million tons, indicating that status quo per capita consumption meets about 94 percent of the nutritional target. The stock adjustment calculation indicates that about 2.2 million tons of imports are needed to begin rebuilding cereal stocks towards the food security target. Reflecting the outlook for another strong production year, status quo edible oil import needs are estimated at about 1 million tons in 1989/90, with nutrition-based needs down to about 650,000 tons. Status quo and nutrition-based estimates of pulse import needs are down sharply because of the record 1989 crop, which will be the main source of domestic supplies during 1989/90.

Despite improved export performance in recent years, India's very tight balance of payments position remains a serious concern to Indian policymakers. India's external position is being heavily pressured by import growth associated with gradual import liberalization measures, by a fall off in growth in foreign remittances, and by rising debt obligations. Large repayments of IMF obligations particularly stressed foreign exchange availabilities during 1988/89 and 1989/90. To manage the situation, the Government has, at least temporarily, halted the modest trend towards liberalization of imports of industrial goods, and maintained strict controls on nonessential imports, including edible oils and food grains for stockbuilding.

India's capacity to import cereals, pulses, and edible oils commercially in 1988/89 is assessed at $848 million. This amount is estimated to be sufficient to cover all status quo import needs to support consumption, as well as cereal stockbuilding needs. Nutrition-based additional needs are estimated at 5.5 million tons of cereals, including 3.2 million for consumption and 2.2 million for stock building.

India basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	120,949	15,272	1,546	118,347	2,420	171	Wheat	18.5
1982/83	112,446	17,000	3,477	112,409	2,420	160	Rice	33.2
1983/84	136,831	18,094	3,085	130,656	2,620	181	Corn	3.1
1984/85	135,261	24,734	(161)	126,828	2,620	172	Sorghum	5.8
1985/86	133,690	30,386	(605)	131,898	2,720	175	Millet	5.2
1986/87	134,041	28,853	(835)	135,570	2,710	176	Barley	0.7
1987/88	124,209	23,779	585	134,182	2,360	171	Pulses	5.8
1988/89	147,689	12,031	2,175	144,485	3,150	181	Vegetable oil	6.3
1989/90	149,400	14,260					Total	78.7
1990/91	152,550	14,260						
Vegetable oils								
1981/82	3,392	160	962	4,434	0	6		
1982/83	2,974	80	1,259	4,163	0	6		
1983/84	3,376	150	1,697	4,833	0	7		
1984/85	3,775	390	1,357	5,172	0	7		
1985/86	3,306	350	1,204	4,560	0	6		
1986/87	3,250	300	1,525	4,705	0	6		
1987/88	3,405	370	1,933	5,258	0	7		
1988/89	4,567	450	505	5,322	0	7		
1989/90	4,312	200						
1990/91	4,550	200						
Pulses								
1981/82	10,627	0	128	10,605	150	15		
1982/83	11,507	0	150	11,507	150	16		
1983/84	11,857	0	300	12,057	100	17		
1984/85	12,893	0	200	12,993	100	17		
1985/86	11,962	0	300	12,212	50	16		
1986/87	13,361	0	300	13,611	50	17		
1987/88	11,707	0	500	12,167	40	15		
1988/89	11,040	0	400	11,400	40	14		
1989/90	13,500	0						
1990/91	12,500	0						

Import requirements for India

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	149,400	144,723	154,491	(4,677)	5,091	17,726
1990/91	152,550	147,613	157,622	(4,937)	5,072	17,592
Vegetable oils						
1989/90	4,312	5,346	4,962	1,034	650	1,673
1990/91	4,550	5,453	5,068	903	518	1,550
Pulses						
1989/90	13,500	13,324	13,608	(176)	108	1,023
1990/91	12,500	13,590	13,743	1,090	1,243	2,313

Financial indicators for India, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	14,645	17,394	2,215	4,460	12,430	6
1982	14,258	16,645	2,852	4,965	11,406	7
1983	15,327	17,358	3,802	5,847	11,525	11
1984	16,193	18,498	3,640	6,110	12,553	11
1985	15,463	19,900	4,592	6,657	10,871	9
1986	16,465	19,366	5,378	6,729	11,087	5
1987	16,970	20,608	6,684	6,391	10,286	8
1988	19,210	23,250	7,860	4,960	11,350	
1989	21,930	25,500	7,947	5,400	11,794	7
1990	24,610	27,200	8,642	6,100	13,974	7

Additional food needs to support consumption for India, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent Consumption						
1989/90	331	87	0	0	3,212	846
1990/91	440	103	0	0	2,511	590
Stock adjustment						
1989/90			2,247	592	2,247	592
1990/91			1,498	352	1,498	352
Total						
1989/90			0	0	5,459	1,438
1990/91			0	0	4,009	942
Vegetable oils						
1989/90	1,294	618	0	0	0	0
1990/91	1,627	732	0	0	0	0
Pulses						
1989/90	360	143	0	0	0	0
1990/91	457	170	0	0	786	292
Total						
1989/90		848		0		1,438
1990/91		1,005		0		1,234
Maximum absorbable						
Cereal equivalent						
1989/90			0	0	5,459	1,438
1990/91			0	0	4,009	942
Vegetable oils						
1989/90			0	0	0	0
1990/91			0	0	0	0
Pulses						
1989/90			0	0	0	0
1990/91			0	0	786	292
Total						
1989/90				0		1,438
1990/91				0		1,234

Nepal

In 1989/90, cereal output is estimated at a record 3.3 million tons, 5 percent above last year, due to improved rice yields. Favorable weather and prices benefited the secondary rice harvest last spring and are expected to boost the main harvest in November, bringing total rice production to 1.8 million tons. Corn and wheat output are estimated to show little growth from 1988/89.

An estimated 49,000 tons of cereal imports will be required to maintain status quo cereal consumption. To close the nutrition gap, however, imports of 780,000 tons are estimated, reflecting severe malnutrition among the populace. The World Bank estimates that 40 to 60 percent of the population does not have adequate incomes to support the minimum caloric intake. Actual cereal imports have been negligible in recent years.

Nepal's economy has slowed considerably since the expiration of the Bilateral Trade and Transit treaties with India in March 1989. Transit through India to other countries continues; however, the close trade ties with India have been difficult to replace, especially for petroleum products. The lack of current data inhibits timely analysis, yet the disruptions to trade and low levels of foreign exchange are likely to strain the country's limited capacity to import food commercially.

As a result, additional needs to support status quo cereal consumption during 1989/90 are estimated at 33,000 tons with nutrition-based needs at 763,000 tons. However, Nepal's rugged terrain and transportation constraints probably restrict food grain handling capacity to 100,000-200,000 tons. Assuming average weather, preliminary projections for 1990/91 suggest that additional cereal needs will be nearly unchanged from 1989/90.

Nepal basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81	
							Commodity coverage	Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	2,935	0	(42)	2,893	0	188	Wheat	10.9
1982/83	2,464	0	83	2,547	0	162	Rice	49.5
1983/84	3,256	0	(16)	3,190	50	201	Corn	19.6
1984/85	3,258	0	(49)	3,209	0	194	Total	80.0
1985/86	3,275	0	25	3,300	0	195		
1986/87	3,046	0	25	3,071	0	177		
1987/88	3,086	0	0	3,086	0	173		
1988/89	3,140	0	0	3,140	0	172		
1989/90	3,300	0						
1990/91	3,380	0						

Import requirements for Nepal

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	3,300	3,349	4,080	49	780	452
1990/91	3,380	3,431	4,182	51	802	463

Financial indicators for Nepal, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	314	460	5	202	309	4
1982	266	494	6	199	260	4
1983	281	559	8	133	272	6
1984	295	507	11	82	284	5
1985	323	564	16	56	307	3
1986	324	554	31	87	293	3
1987	387	650	43	178	344	4
1988	428	827	45	220	383	
1989	475	750	45	150	424	3
1990	485	775	50	150	423	3

Additional food needs to support consumption for Nepal, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent Consumption						
1989/90	17	4	33	8	763	194
1990/91	19	4	33	7	783	177
Stock adjustment						
1989/90			0	0	0	0
1990/91			0	0	0	0
Total						
1989/90			33	8	763	194
1990/91			33	7	783	177
Maximum absorbable						
Cereal equivalent						
1989/90			33	8	435	110
1990/91			33	7	445	101

Pakistan

Status quo cereal needs for 1989/90 are assessed at 595,000 tons. The stocks adjustment is the same as in 1988/89, but needs for consumption are only one sixth as great because import requirements are down sharply. A 1.1 million ton increase in production is offset by a 400,000 ton increase in use. Wheat production is up nearly 800,000 tons from 1988/89 and rice up 360,000.

Commercial import capacity increases from $119 million in 1988/89 to $131 in 1989/90, but buys only 20,000 tons additional cereal. A further financial improvement in 1990/91 and lower cereal import prices increase import capacity. This, in conjunction with continued production growth in 1990/91, eliminates status quo needs for consumption; however, needs for stocks adjustment continue at 143,000 tons.

The commercial import capacity for vegetable oils continues to be high, driven by past high levels of commercial import, and Pakistan has no shortfall. A falloff in pulses production increases import requirements by over 200,000 tons. With limited import capacity, Pakistan has a 164,000 ton status quo need in pulses.

The population data employed in this analysis are not adjusted to reflect the Afghan refugees. With political settlement moving slowing in Afghanistan, it can be expected that refugee food assistance will continue to be required.

Pakistan basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	15,833	1,204	(494)	14,394	130	164	Wheat	47.2
1982/83	15,754	2,019	(654)	14,636	140	162	Rice	10.5
1983/84	16,766	2,343	(984)	15,183	150	164	Corn	3.3
1984/85	15,225	2,792	157	15,580	160	164	Vegetable oils	7.7
1985/86	15,631	2,434	535	15,368	252	158	Pulses	2.2
1986/87	18,519	2,980	(926)	16,191	270	162	Total	70.9
1987/88	16,388	4,112	(378)	16,952	275	165		
1988/89	16,925	2,895	1,300	17,861	275	169		
1989/90	18,126	2,984						
1990/91	18,545	2,984						
Vegetable oils								
1981/82	240	62	570	805	0	9		
1982/83	256	67	660	914	0	10		
1983/84	190	69	635	817	0	9		
1984/85	289	77	655	946	0	10		
1985/86	344	75	1,016	1,115	0	11		
1986/87	347	320	617	1,159	0	11		
1987/88	377	125	882	1,239	0	12		
1988/89	385	145	930	1,360	0	13		
1989/90	348	100						
1990/91	358	100						
Pulses								
1981/82	488	0	40	478	50	6		
1982/83	694	0	50	692	52	8		
1983/84	710	0	65	725	50	8		
1984/85	726	0	42	718	50	8		
1985/86	732	0	61	743	50	8		
1986/87	790	0	40	780	50	8		
1987/88	773	0	80	803	50	8		
1988/89	552	0	120	622	50	6		
1989/90	660	0						
1990/91	700	0						

Import requirements for Pakistan

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	18,126	18,979	19,836	853	1,710	1,634
1990/91	18,545	19,406	20,286	861	1,741	1,680
Vegetable oils						
1989/90	348	1,224	854	876	506	1,269
1990/91	358	1,254	875	896	517	1,294
Pulses						
1989/90	660	892	795	232	135	253
1990/91	700	914	818	214	118	236

Financial indicators for Pakistan, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	5,595	7,130	1,524	1,911	4,071	9
1982	6,326	7,222	1,573	1,731	4,753	9
1983	6,890	7,155	1,499	668	5,391	7
1984	6,130	7,984	1,518	930	4,612	13
1985	6,459	7,848	1,733	900	4,726	13
1986	6,191	7,919	2,187	710	4,004	14
1987	6,838	8,437	1,980	502	4,858	6
1988	7,900	8,900	2,041	395	5,859	
1989	8,500	9,600	2,039	600	6,334	11
1990	9,000	10,300	2,072	700	6,848	11

Additional food needs to support consumption for Pakistan, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent Consumption						
1989/90	524	131	98	25	178	44
1990/91	635	141	0	0	0	0
Stock adjustment						
1989/90			497	124	497	124
1990/91			437	97	437	97
Total						
1989/90			595	149	675	168
1990/91			143	32	181	40
Vegetable oils						
1989/90	985	517	0	0	0	0
1990/91	1,130	559	0	0	0	0
Pulses						
1989/90	68	30	164	73	67	30
1990/91	78	33	0	0	0	0
Total						
1989/90		678		222		199
1990/91		733		32		40
Maximum absorbable						
Cereal equivalent						
1989/90			595	149	599	149
1990/91			143	32	121	27
Vegetable oils						
1989/90			0	0	0	0
1990/91			0	0	0	0
Pulses						
1989/90			164	73	67	30
1990/91			0	0	0	0
Total						
1989/90				222		180
1990/91				32		27

Sri Lanka

During 1989/90, drought is estimated to have reduced the rice crop to 1.35 million tons, 19 percent below the previous year, and the lowest since 1976. Poor weather and political violence also are affecting the growth of secondary and plantation crops, such as pulses, corn, tea, rubber, and roots. Vegetable oil output, dominated by coconut oil, is expected to drop 24 percent to 57,000 tons in 1989/90 because of dry weather since October 1988.

To support status quo cereal consumption in 1989/90, import requirements of 1.2 million tons are forecast. The nutrition-based estimate is lower at 1.1 million tons. Wheat, which is not grown in Sri Lanka, has accounted for the bulk of historical cereal imports. To ease the pressure food grain subsidies have on the budget, the government has recently begun to increase retail prices and has transferred the responsibility for importing wheat and rice to the Cooperative Wholesale Establishment and to the private sector, respectively.

Although the economic malaise of recent years contributed to the escalation of Sri Lanka's civil unrest, the volatile political situation now compromises the economic program of the nearly year-old government of President Premadasa. Immediate targets include reducing the government's budget deficit, devaluing the rupee to offset the deteriorating balance of payments situation, and improving the efficiency of public sector companies. With low international reserves and weak export performance, the servicing of the current account deficit and foreign debt obligations will likely be difficult without concessional financing. In October, international donors pledged $785 million in loans to support economic reforms in agreement with the International Monetary Fund and the World Bank.

The ability of Sri Lanka to make additional food imports under commercial terms is extremely limited, causing additional cereal needs to be about the same as import requirements: additional needs to support status quo cereal consumption in 1989/90 are estimated at 872,000 tons and nutrition-based needs at 768,000 tons. To rebuild stocks, an additional 84,000 tons of cereals are suggested. Current stocks are below the government minimum buffer stock requirement of 100,000 tons.

With average weather and improvements in the country's financial outlook in 1990/91, additional cereal needs are forecast to fall to 500,000 tons using the status quo method. To meet FAO/WHO nutritional standards, additional needs of 428,000 tons are estimated. For food security purposes, an additional 65,000 tons of cereals are estimated for stock-building.

Sri Lanka basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	1,469	198	663	2,142	0	141	Wheat	13.8
1982/83	1,466	188	789	2,226	0	145	Rice	42.0
1983/84	1,688	217	728	2,321	0	149	Cassava	3.0
1984/85	1,640	312	705	2,451	0	155	Vegetable oils	3.5
1985/86	1,809	206	876	2,527	0	158	Total	62.3
1986/87	1,765	364	812	2,355	0	146		
1987/88	1,445	586	762	2,458	0	150		
1988/89	1,670	335	910	2,545	0	153		
1989/90	1,350	370						
1990/91	1,650	370						
Roots								
1981/82	526	0	0	526	0	35		
1982/83	573	0	0	573	0	37		
1983/84	722	0	0	722	0	46		
1984/85	683	0	0	683	0	43		
1985/86	598	0	0	598	0	37		
1986/87	615	0	0	615	0	38		
1987/88	630	0	0	630	0	38		
1988/89	650	0	0	650	0	39		
1989/90	665	0						
1990/91	675	0						
Vegetable oils								
1981/82	103	0	(35)	68	0	4		
1982/83	87	0	(26)	61	0	4		
1983/84	37	0	1	38	0	2		
1984/85	128	0	(63)	65	0	4		
1985/86	150	0	(68)	82	0	5		
1986/87	72	0	6	78	0	5		
1987/88	35	0	22	57	0	3		
1988/89	75	0	2	77	0	5		
1989/90	57	0						
1990/91	75	0						

Import requirements for Sri Lanka

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	1,350	2,518	2,437	1,168	1,087	1,533
1990/91	1,650	2,552	2,493	902	843	1,268
Roots						
1989/90	665	665	609	0	(56)	115
1990/91	675	674	617	(1)	(58)	116
Cereal equivalent						
1989/90	1,611	2,779	2,675	1,168	1,065	1,519
1990/91	1,915	2,816	2,735	901	820	1,254
Vegetable oils						
1989/90	57	72	70	15	13	30
1990/91	75	73	76	(2)	1	13

Financial indicators for Sri Lanka, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	1,375	2,183	266	327	1,109	12
1982	1,348	2,323	300	351	1,048	7
1983	1,404	2,315	341	297	1,063	11
1984	1,796	2,274	317	511	1,479	7
1985	1,644	2,506	368	451	1,276	8
1986	1,582	2,470	423	353	1,159	13
1987	1,791	2,610	410	279	1,381	6
1988	1,875	2,804	465	222	1,410	
1989	1,900	2,850	430	225	1,337	9
1990	2,035	2,900	385	230	1,516	9

Additional food needs to support consumption for Sri Lanka, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent Consumption						
1989/90	296	63	872	187	768	165
1990/91	376	72	500	96	428	82
Stock adjustment						
1989/90			84	18	84	18
1990/91			65	12	65	12
Total						
1989/90			956	205	852	182
1990/91			565	108	493	94
Vegetable oils						
1989/90	6	3	9	5	8	4
1990/91	7	4	0	0	0	0
Total						
1989/90		67		210		187
1990/91		76		108		94
Maximum absorbable						
Cereal equivalent						
1989/90			956	205	852	182
1990/91			565	108	493	94
Vegetable oils						
1988/89			9	5	8	4
1989/90			0	0	0	0
Total						
1988/89				210		187
1989/90				108		94

Southeast Asia

Indonesia

With an excellent main rice harvest and abundant water supplies for the largely irrigated second crop, record cereal output is estimated for 1989/90. Rice output is estimated at 28 million tons, nearly 2 percent above the record 1988/89 crop. Due to favorable weather but uncertain prices, corn output is estimated at 5.2 million tons, unchanged from last year. Cassava farmers are expected to respond to the higher prices being offered by the Indonesian Association of Animal Food Producers with an estimated harvest of 15.2 million tons. Maturity of Indonesia's palm oil plantations is largely responsible for the estimated 8-percent increase in vegetable oil output in 1989/90. Cereal imports of 1.9 million tons are suggested to maintain status quo consumption in 1989/90. In recent years, the bulk of cereal imports has been wheat; this trend is likely to continue. Using the nutrition-based method, no imports are indicated.

At the onset of Indonesia's fifth 5-year plan (Repelita V) in April 1989, the government's main policy objective is to encourage development financing by curbing current expenditures and increasing revenues. Strong growth in liquid natural gas production and exports, as well as food self-sufficiency are key targets. The steady accumulation of foreign debt in the 1980s and sharp rise in debt service payments further ties the country's economic performance to external factors, such as oil and other commodity prices, world trade, interest, and exchange rates. Indonesia's commercial import capacity should be adequate to meet its cereal import and stock building requirements in 1989/90 and 1990/91. The stock adjustment calculation suggests that additional cereal imports of 554,000 tons would enhance the country's food security in 1989/90.

With normal weather, continued growth in cereal, root, and vegetable oil output is projected for 1990/91. Preliminary projections call for cereal import requirements of 2.4 million tons to maintain status quo consumption, but again, no nutrition-based requirements. Further stockbuilding of 387,000 tons is indicated in 1990/91.

Indonesia basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	26,795	2,033	1,867	26,988	1,121	177	Wheat	2.5
1982/83	26,072	2,586	2,010	27,355	1,208	176	Rice	57.9
1983/84	29,093	2,105	2,921	30,407	1,439	192	Corn	7.9
1984/85	31,221	2,273	1,722	30,320	1,559	188	Cassava	6.5
1985/86	30,872	3,337	1,004	30,342	1,776	186	Vegetable	
1986/87	31,500	3,095	1,465	31,123	2,085	188	oils	5.0
1987/88	31,800	2,852	1,708	31,973	2,280	190	Total	79.8
1988/89	32,700	2,107	1,358	31,778	2,280	185		
1989/90	33,200	2,107						
1990/91	33,375	2,107						
Roots								
1981/82	13,301	0	(685)	12,356	260	80		
1982/83	12,988	0	(490)	12,298	200	77		
1983/84	12,103	0	(256)	11,607	240	71		
1984/85	14,205	0	(1,050)	12,875	280	78		
1985/86	13,762	0	(1,630)	11,842	290	70		
1986/87	13,312	0	(1,185)	11,891	236	69		
1987/88	14,356	0	(2,237)	11,854	265	67		
1988/89	15,000	0	(1,359)	13,376	265	74		
1989/90	15,200	0						
1990/91	15,400	0						
Vegetable oils								
1981/82	1,618	55	(303)	1,304	0	8		
1982/83	1,703	66	(414)	1,331	0	8		
1983/84	1,942	24	(229)	1,577	0	10		
1984/85	2,029	160	(903)	1,249	0	7		
1985/86	2,156	37	(797)	1,369	0	8		
1986/87	2,183	27	(667)	1,445	0	8		
1987/88	2,316	98	(856)	1,515	0	8		
1988/89	2,509	43	(762)	1,719	0	9		
1989/90	2,699	71						
1990/91	2,800	71						

Import requirements for Indonesia

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	33,200	35,114	32,759	1,914	(441)	4,080
1990/91	33,375	35,790	33,358	2,415	(17)	4,600
Roots						
1989/90	15,200	13,754	14,533	(1,446)	(667)	(231)
1990/91	15,400	14,019	14,785	(1,381)	(615)	(142)
Cereal equivalent						
1989/90	38,961	40,326	38,267	1,366	(694)	3,402
1990/91	39,212	41,103	38,962	1,892	(250)	3,944
Vegetable oils						
1989/90	2,699	1,534	1,650	(1,165)	(1,049)	(825)
1990/91	2,800	1,563	1,696	(1,237)	(1,104)	(891)

Financial indicators for Indonesia, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	23,348	16,542	2,047	5,014	21,301	2
1982	19,747	17,854	2,249	3,144	17,498	2
1983	18,689	17,726	2,542	3,718	16,147	4
1984	20,754	15,047	3,240	4,773	17,514	3
1985	18,527	12,705	3,991	4,974	14,536	2
1986	14,396	11,938	4,379	4,051	10,017	3
1987	17,206	12,013	5,434	5,592	11,772	3
1988	19,382	13,000	6,900	5,048	12,482	
1989	21,370	16,190	8,200	5,300	12,058	3
1990	23,440	18,420	8,500	5,300	12,945	3

Additional food needs to support consumption for Indonesia, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent						
Consumption						
1989/90	59	15	7	2	0	0
1990/91	69	15	0	0	0	0
Stock adjustment						
1989/90			(1)	(0)	(1)	(0)
1990/91			0	0	0	0
Total						
1989/90			7	2	0	0
1990/91			0	0	0	0
Maximum absorbable						
Cereal equivalent						
1989/90			7	2	0	0
1990/91			0	0	0	0

Philippines

Total cereal production in 1989/90 is estimated to increase 2 percent to a record 10.6 million tons, because of expected gains in rice output. Good monsoon rains and attractive prices are expected to increase rice output to an estimated 6.1 million tons, 3 percent above last year's harvest. In addition, a new government rice program aims at boosting dry season productivity and government stocks by providing farmers with high-yielding seeds and fertilizer in exchange for rice. Corn output is projected to drop to 4.5 million tons, 1 percent below 1988/89, in response to stronger prices offered for other crops, particularly rice and sugar.

The gradual recovery of vegetable oil output is expected in 1989/90, as better weather raises coconut oil production 8 percent to 1.2 million tons. A recent World Bank loan aims to support future growth of the coconut sector through a much-needed rehabilitation program consisting of replanting and fertilization, but no startup time has yet been set. Total root crop output in 1989/90 is forecast up nearly 5 percent to 2.9 million tons, with steady growth in cassava and sweet potato production.

Status quo cereal import requirements are estimated at 1.2 million tons, while nutrition-based needs are estimated at 1.7 million tons. To support domestic rice and corn farmers, cereal imports will likely continue to be dominated by wheat, which is not produced in the

Philippines. Wheat imports reached a record 1.2 million tons in 1988/89 and are forecast at 1.3 million tons in 1989/90.

Following the severe economic and financial crisis during 1983-86, the Philippine economy has averaged annual growth of 6.3 percent since 1987 (per capita GDP of 3.9 percent). Still, growth will rely heavily upon large increases in foreign assistance, investment, and public savings, as well as new financing and debt reduction. The balance of payments situation is expected to be tight through 1991, with the widening trade and budget deficits posing the most serious threats to the country's recovery. To finance the trade gap and foreign debt obligations, international reserves have fallen steadily during 1989 and as of July 1989 were only $430 million. The Philippines Multilateral Assistance Initiative is expected to provide inflows from abroad to help alleviate expected financing gaps in the 1990s.

No additional needs to support status quo cereal consumption are expected during 1989/90. To meet the minimum nutritional level recommended by FAO/WHO, additional needs of 371,000 tons are estimated. The stock adjustment calculation suggests 213,000 tons for stock rebuilding in 1989/90. Following 2 consecutive years of reduced rice harvests, rice stocks have been steadily lowered in an effort to minimize imports and stabilize domestic prices. Assuming normal weather, further expansion in Philippine cereal, root, and coconut output is expected in 1990/91. With better harvests and an improved commercial import capacity, only nutrition-based additional cereal import needs of 84,000 tons are indicated. To bolster the country's food grain position, additional cereal needs of 197,000 tons for stock building are indicated.

Philippines basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	8,560	1,775	1,132	7,579	2,120	186	Wheat	4.8
1982/83	8,151	1,768	1,320	7,489	2,199	180	Rice	38.1
1983/84	8,443	1,551	1,050	8,042	1,850	179	Corn	16.6
1984/85	8,769	1,152	1,478	8,194	1,922	178	Cassava	4.7
1985/86	9,835	1,283	1,191	8,524	2,072	182	Sweet potatoes	2.2
1986/87	9,847	1,713	869	8,416	2,442	181	Vegetable oils	2.9
1987/88	10,003	1,571	1,191	9,085	2,239	184	Total	69.3
1988/89	10,440	1,441	1,441	9,646	2,239	188		
1989/90	10,610	1,437						
1990/91	10,650	1,437						
Roots								
1981/82	3,025	0	0	3,025	0	58		
1982/83	1,970	0	0	1,970	0	37		
1983/84	2,084	0	0	2,084	0	38		
1984/85	2,351	0	0	2,351	0	41		
1985/86	2,501	0	0	2,501	0	43		
1986/87	2,610	0	0	2,610	0	44		
1987/88	2,735	0	0	2,735	0	44		
1988/89	2,800	0	0	2,800	0	44		
1989/90	2,925	0						
1990/91	3,050	0						
Vegetable oils								
1981/82	1,123	65	(949)	169	0	3		
1982/83	1,285	70	(1,020)	295	0	5		
1983/84	786	40	(586)	159	0	3		
1984/85	919	81	(655)	230	0	4		
1985/86	1,587	115	(1,238)	286	0	5		
1986/87	1,320	178	(1,054)	257	0	4		
1987/88	1,115	187	(864)	296	0	5		
1988/89	1,110	142	(713)	322	0	5		
1989/90	1,197	217						
1990/91	1,300	217						

Import requirements for Philippines

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	10,610	11,774	12,277	1,164	1,667	1,927
1990/91	10,650	12,089	12,580	1,439	1,930	2,214
Roots						
1989/90	2,925	2,838	4,564	(87)	1,639	832
1990/91	3,050	2,914	4,688	(136)	1,638	808
Cereal equivalent						
1989/90	11,681	12,813	13,947	1,132	2,266	2,072
1990/91	11,767	13,156	14,296	1,389	2,530	2,346
Vegetable oils						
1989/90	1,197	310	666	(887)	(531)	(840)
1990/91	1,300	318	712	(982)	(588)	(934)

Financial indicators for Philippines, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	8,583	11,151	2,169	2,066	6,414	5
1982	8,004	11,690	3,050	888	4,954	8
1983	8,132	11,352	2,903	747	5,229	7
1984	8,017	9,671	3,438	602	4,579	6
1985	7,917	8,314	2,641	615	5,276	6
1986	8,633	8,103	2,937	1,728	5,696	4
1987	9,174	10,191	3,273	968	5,901	3
1988	10,680	11,842	3,599	1,003	7,081	
1989	12,115	13,860	4,100	800	7,260	4
1990	13,300	15,375	4,300	1,000	8,275	4

Additional food needs to support consumption for Philippines, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent Consumption						
1989/90	809	190	0	0	253	59
1990/91	1,034	216	0	0	84	18
Stock adjustment						
1989/90			213	50	213	50
1990/91			197	41	197	41
Total						
1989/90			0	0	466	109
1990/91			0	0	281	59
Vegetable oils						
1989/90	10	5	0	0	0	0
1990/91	13	6	0	0	0	0
Total						
1989/90		195		0		109
1990/91		223		0		59
Maximum absorbable						
Cereal equivalent						
1989/90			0	0	0	0
1990/91			0	0	0	0
Vegetable oils						
1988/89			0	0	0	0
1989/90			0	0	0	0
Total						
1988/89				0		0
1989/90				0		0

Central America

Costa Rica

Total cereal production is projected to increase 21 percent to 218,000 tons in 1989/90, following drought-reduced rice and corn crops in 1988/89. Assuming normal weather, increased area and yields are estimated to lead to better rice and corn crops of 126,000 tons and 92,000 tons, respectively. Wheat is not produced in Costa Rica but is an important cereal supplement, particularly in urban areas, where demand is satisfied by imports.

To maintain status quo consumption in 1989/90, cereal import requirements are estimated at 206,000 tons. These requirements are slightly higher for 1990/91 because of rising cereal use.

The continuing tight balance of payments is a major concern for the Government of Costa Rica. Efforts to transform Costa Rica's external sector yielded positive results in 1988. The country has made significant progress in lowering its dependency on a few traditional crops such as coffee, sugar, bananas, and beef. The non-traditional exports to third markets grew much faster than the traditional exports in response to government policies. The government has demonstrated continued commitment to opening its economy, a continued inflow of foreign aid, and progress in dealing with its foreign debt problems. However, Costa Rica's public sector foreign debt was estimated at $4 billion at the beginning of 1989. Servicing this debt would require more than half of the income derived from the export of goods and non-factor services.

Costa Rica's 1989/90 commercial import capacity is estimated at only $6 million. This is explained largely by the surge in world cereal prices. As a result, status quo additional needs in 1988/89 are calculated to have risen to 196,000 tons. This estimate includes 16,000 tons for building stocks that fell to extremely low levels. Costa Rica's tight financial situation has reduced its capability of allocating a larger share of available foreign exchange to food grain imports.

Import requirements and additional food needs based on FAO recommended minimum caloric needs are lower than status quo needs, indicating that in recent years food imports have maintained consumption above these minimums.

Costa Rica basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	209	54	100	264	70	141	Wheat	11.4
1982/83	173	29	196	272	70	140	Rice	14.0
1983/84	256	56	120	258	70	131	Corn	7.8
1984/85	233	104	127	285	70	138	Total	33.2
1985/86	284	109	108	336	70	153		
1986/87	229	95	155	329	75	148		
1987/88	178	75	279	402	76	170		
1988/89	180	54	323	413	76	169		
1989/90	218	68						
1990/91	226	68						

Import requirements for Costa Rica

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	218	424	366	206	148	327
1990/91	226	434	376	208	150	332

Financial indicators for Costa Rica, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	1,200	1,636	200	132	1,000	4
1982	1,143	1,446	133	226	1,010	1
1983	1,173	1,521	605	311	568	8
1984	1,314	1,606	328	405	986	1
1985	1,270	1,615	448	506	822	2
1986	1,440	1,672	384	523	1,056	2
1987	1,492	1,978	182	489	1,310	1
1988	1,626	2,159	251	668	1,375	
1989	1,764	2,330	300	600	1,378	1
1990	1,765	2,330	300	600	1,379	1

Additional food needs to support consumption for Costa Rica, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent						
Consumption						
1989/90	25	6	180	42	123	28
1990/91	29	6	180	37	121	25
Stock adjustment						
1989/90			16	4	16	4
1990/91			19	4	19	4
Total						
1989/90			196	45	139	32
1990/91			199	41	140	29
Maximum absorbable						
Cereal equivalent						
1989/90			196	45	139	32
1990/91			199	41	140	29

El Salvador

Total cereal production in 1989/90 is expected to decrease 4,000 tons from the record 777,000 tons of 1988/89, because of expected declines in corn output. Corn production is estimated at 580,000 tons, 2 percent lower than the bumper crop of 1988/89. The Ministry of Agriculture announced that the corn planting area will be reduced 2 percent. Sorghum production in 1988/89 rebounded to over 150,000 tons from the previous drought-reduced harvest. The 1989/90 harvest is forecast to increase 3 percent.

Status quo cereal import needs are estimated at 135,000 tons for 1989/90, slightly below the earlier assessment because of increased production estimates. Nutrition-based import requirements are estimated at 216,000 tons, reflecting a substantial nutritional gap. To support domestic grain production, imports will likely continue to be dominated by wheat, which is not produced in El Salvador.

El Salvador's agrarian-oriented and war-battered economy continued to show modest growth in 1988. Real growth of only 0.5 to 1.0 percent is expected in 1989, accompanied by reduced inflation, a widening balance of payments gap, and a higher deficit. The new president of the conservative ARENA party is committed to a program of gradual liberalization. The government's economic policies have yet to be fully implemented, and the cost of insurgency to the economy has been put at $1.7 billion.

El Salvador's 1989/90 status quo additional food needs are estimated at 133,000 tons, while nutrition-based additional food requirements are estimated at 215,000 tons. Lower commercial cereal imports in recent years have sharply reduced commercial cereal import capacity, increasing additional cereal needs.

In 1990/91 status quo additional needs will rise to 149,000 tons of cereal, while nutrition-based needs will almost double this amount. Additional needs are projected to rise in 1990/91 despite the outlook for a somewhat better corn harvest, because of the need to rebuild stocks and the inability to divert a large share of available foreign exchange to food imports, especially grains.

El Salvador basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	657	114	149	636	194	178	Wheat	8.5
1982/83	552	90	182	575	193	164	Rice	3.4
1983/84	586	56	226	561	194	158	Corn	36.2
1984/85	691	113	145	579	211	161	Sorghum	6.6
1985/86	665	159	161	660	182	168	Dry beans	3.7
1986/87	608	143	234	693	149	164	Total	58.5
1987/88	626	143	215	666	200	165		
1988/89	777	118	212	774	200	181		
1989/90	773	133						
1990/91	780	133						
Pulses								
1981/82	38	6	2	46	0	10		
1982/83	38	0	13	51	0	11		
1983/84	42	0	0	42	0	9		
1984/85	48	0	10	58	0	12		
1985/86	34	0	10	44	0	9		
1986/87	50	0	20	70	0	14		
1987/88	24	0	6	30	0	6		
1988/89	56	0	0	56	0	10		
1989/90	35	0						
1990/91	35	0						

Import requirements for El Salvador

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	773	908	989	135	216	251
1990/91	780	930	1,013	150	233	269
Pulses						
1989/90	35	55	55	20	20	39
1990/91	35	56	57	21	22	40

Financial indicators for El Salvador, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	970	1,281	48	72	923	5
1982	868	1,221	68	109	800	3
1983	931	1,229	154	160	777	1
1984	954	1,379	194	166	760	4
1985	967	1,390	196	180	771	2
1986	1,033	1,355	183	170	850	0
1987	891	1,394	180	186	711	2
1988	934	1,407	180	162	754	
1989	1,025	1,440	200	190	834	2
1990	1,025	1,440	200	190	834	2

Additional food needs to support consumption for El Salvador, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent Consumption						
1989/90	1	0	133	32	215	52
1990/91	1	0	149	32	232	50
Stock adjustment						
1989/90			11	3	11	3
1990/91			17	4	17	4
Total						
1989/90			144	35	226	55
1990/91			166	36	249	54
Pulses						
1989/90	2	1	18	8	18	8
1990/91	2	1	19	8	19	8
Total						
1989/90		1		43		63
1990/91		1		44		62
Maximum absorbable						
Cereal equivalent						
1989/90			144	35	226	55
1990/91			166	36	249	54
Pulses						
1989/90			18	8	18	8
1990/91			19	8	19	8
Total						
1989/90				43		63
1990/91				44		62

Guatemala

Revision in historical wheat and corn production data have reduced estimated total cereal production during 1989/90 to 1.3 million tons. In addition, some producers have shifted production from wheat to winter vegetables, looking at the better export prospects for non-traditional exports.

Lower estimated production has increased status quo cereal import requirements from a surplus of 46,000 tons in 1988/89 to a deficit of 98,000 tons in 1989/90. Imports to meet FAO/WHO recommended minimum caloric intake requirements are estimated at 259,000 tons, indicating a substantial nutritional gap.

Guatemala's economy continues to improve although the balance of payments is projected to remain very tight during the next 2 years. Imports continue to be projected to exceed exports by 46 percent. Limited foreign exchange makes it unlikely that Guatemala will be able to purchase cereals on a commercial basis.

Status quo additional cereal needs in 1989/90 are now estimated at 64,000 tons, including 30,000 tons to rebuild stocks. Maximum absorbable nutrition-based additional needs are estimated at 255,000 tons.

Guatemala basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	1,034	118	80	963	179	154	Wheat	9.6
1982/83	1,141	90	79	979	175	151	Corn	45.7
1983/84	1,099	156	102	1,008	203	155	Dry beans	4.4
1984/85	1,146	146	150	1,070	221	161	Total	59.7
1985/86	1,141	151	175	1,071	223	158		
1986/87	1,122	173	204	1,174	225	166		
1987/88	1,263	100	150	1,168	227	162		
1988/89	1,321	118	150	1,264	227	169		
1989/90	1,340	98						
1990/91	1,355	98						
Pulses								
1981/82	84	0	6	88	0	12		
1982/83	89	2	0	90	0	12		
1983/84	85	1	6	92	0	12		
1984/85	95	0	4	99	0	12		
1985/86	100	0	4	104	0	13		
1986/87	50	0	20	70	0	8		
1987/88	65	0	4	69	0	8		
1988/89	75	0	10	85	0	10		
1989/90	75	0						
1990/91	75	0						

Import requirements for Guatemala

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	1,340	1,438	1,599	98	259	261
1990/91	1,355	1,471	1,634	116	279	282
Pulses						
1989/90	75	103	103	28	28	42
1990/91	75	105	106	30	31	44

Financial indicators for Guatemala, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available Total	Foreign exchange available Share to major food imports
	$ million					Percent
1981	1,526	2,190	60	150	1,466	4
1982	1,312	1,774	102	112	1,210	4
1983	1,205	1,460	146	210	1,059	3
1984	1,261	1,667	193	274	1,068	4
1985	1,191	1,457	256	301	935	5
1986	1,203	1,296	282	362	921	3
1987	1,167	1,803	292	288	875	0
1988	1,200	1,975	300	201	900	
1989	1,370	2,000	300	250	967	3
1990	1,370	2,000	300	250	967	3

Additional food needs to support consumption for Guatemala, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent Consumption						
1989/90	34	8	64	15	226	53
1990/91	38	8	78	16	241	51
Stock adjustment						
1989/90			30	7	30	7
1990/91			26	5	26	5
Total						
1989/90			94	22	255	60
1990/91			104	22	267	56
Pulses						
1989/90	1	1	27	16	27	16
1990/91	1	1	29	16	29	16
Total						
1989/90		9		38		76
1990/91		9		38		72
Maximum absorbable						
Cereal equivalent						
1989/90			94	22	255	60
1990/91			104	22	267	56
Pulses						
1989/90			27	16	27	16
1990/91			29	16	29	16
Total						
1989/90				38		76
1990/91				38		72

Honduras

Total cereal output in Honduras during 1989/90 is forecast at 475,000 tons, 8 percent above 1988/89. While the 1988/89 crop was 3 percent larger than the previous year, it fell short of expectations mainly because of lack of precipitation during the planting season. Basic grain production in Honduras is carried out almost exclusively by a large number of small producers with minimal technology and irrigation. Therefore, annual supply is highly affected by rainfall patterns.

Status quo and nutrition-based cereal import requirements are estimated at 173,000 and 295,000 tons, respectively. With status quo and nutrition-based total use increasing to 648,000 and 770,000 tons, and with a very limited capacity to import cereals commercially, Honduras has status quo and nutrition-based food needs to support consumption of 165,000 and 287,000 tons, respectively. Although cereal use is expected to rise in 1990/91, status quo additional food needs are estimated to decline because of a projected increase in corn production and improved capacity to import commercially. Nutrition-based additional cereal needs continue to be larger than status quo needs, implying that food assistance programs have not met minimum caloric requirements.

The estimated share of foreign exchange that Honduras allocated to major food imports has declined from 3 to 1 percent, mainly because of revisions in Hondura's financial data, especially the debt service and international reserves.

Honduras basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	487	72	104	432	130	143	Wheat	6.1
1982/83	385	101	90	411	120	130	Corn	41.1
1983/84	417	45	114	397	130	125	Dry beans	4.3
1984/85	506	49	65	442	135	133	Total	51.5
1985/86	415	43	110	407	120	117		
1986/87	370	41	192	388	140	113		
1987/88	428	75	164	488	140	130		
1988/89	440	39	125	429	140	114		
1989/90	475	35						
1990/91	500	35						
Pulses								
1981/82	43	0	(2)	41	0	10		
1982/83	45	0	1	46	0	11		
1983/84	44	0	0	44	0	10		
1984/85	50	0	0	50	0	11		
1985/86	50	0	0	50	0	11		
1986/87	47	0	0	47	0	10		
1987/88	23	0	7	30	0	6		
1988/89	46	0	3	49	0	10		
1989/90	50	0						
1990/91	50	0						

Import requirements for Honduras

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	475	648	770	173	295	324
1990/91	500	668	795	168	295	322
Pulses						
1989/90	50	56	62	6	12	9
1990/91	50	58	64	8	14	11

Financial indicators for Honduras, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	903	1,233	117	101	786	3
1982	784	1,042	149	112	635	1
1983	815	1,079	121	114	694	1
1984	863	1,260	128	128	735	1
1985	918	1,268	166	106	753	1
1986	985	1,287	186	111	799	1
1987	939	1,328	229	106	710	2
1988	1,029	1,366	235	54	794	
1989	1,100	1,400	250	75	824	1
1990	1,100	1,400	250	75	824	1

Additional food needs to support consumption for Honduras, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent Consumption						
1989/90	8	2	165	40	287	70
1990/91	9	2	158	35	285	63
Stock adjustment						
1989/90			30	7	30	7
1990/91			2	0	2	0
Total						
1989/90			195	48	317	78
1990/91			160	35	287	63
Pulses						
1989/90	1	0	5	3	12	6
1990/91	1	0	7	4	13	7
Total						
1989/90		2		51		84
1990/91		2		39		70
Maximum absorbable						
Cereal equivalent						
1989/90			195	48	317	78
1990/91			160	35	287	63
Pulses						
1989/90			5	3	8	5
1990/91			7	4	10	5
Total						
1989/90				51		82
1990/91				39		68

Nicaragua

Information on Nicaragua's economy and food supply continue to be limited. Grain production in 1989/90 is still forecast at 352,000 tons. The Sandinista goal has been to increase grain production to make food available at lower prices. This policy has not succeeded because of inefficiencies of state controlled farms and because population growth has continued to outpace grain production. Status quo import requirements are estimated at 141,000 tons in 1989/90.

Nicaragua's economic situation continues to be characterized by acute supply shortages, hyperinflation, and declining export earnings. Commercial cereal import capacity has declined to $16 million as a result of higher world grain prices and a revision in trade data. This only buys 42,000 tons of cereal. Additional status quo needs to support consumption are 67,000 tons, valued at $26 million. Stock adjustments increase this to 79,000. Nutrition-based needs are lower, indicating that adequate cereal imports are available.

Nicaragua basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	276	32	72	355	0	123	Wheat	4.0
1982/83	267	25	116	396	0	134	Rice	12.8
1983/84	298	12	110	420	0	139	Corn	27.0
1984/85	256	0	115	371	0	120	Dry beans	5.8
1985/86	335	0	140	475	0	150	Total	49.5
1986/87	328	0	165	493	0	152		
1987/88	345	0	170	515	0	155		
1988/89	327	0	165	492	0	144		
1989/90	352	0						
1990/91	352	0						
Pulses								
1981/82	39	3	0	35	0	12		
1982/83	34	7	0	27	0	9		
1983/84	30	14	(10)	25	0	8		
1984/85	22	9	0	23	0	7		
1985/86	57	8	0	57	0	18		
1986/87	59	8	0	59	0	18		
1987/88	38	8	(3)	36	0	11		
1988/89	50	8	0	50	0	15		
1989/90	50	8						
1990/91	50	8						

Import requirements for Nicaragua

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	352	493	425	141	73	217
1990/91	352	508	436	156	84	233
Pulses						
1989/90	50	37	54	(13)	4	28
1990/91	50	38	56	(12)	6	30

Financial indicators for Nicaragua, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available Total	Foreign exchange available Share to major food imports
	$ million					Percent
1981	573	1,321	161	111	412	18
1982	456	1,021	163	171	293	9
1983	478	1,117	82	175	396	12
1984	435	1,164	64	125	371	16
1985	353	1,196	47	100	306	17
1986	295	1,102	32	100	263	9
1987	300	1,150	34	100	266	9
1988	350	1,150	34	100	316	
1989	400	1,200	50	100	346	11
1990	400	1,200	50	100	346	11

Additional food needs to support consumption for Nicaragua, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent Consumption						
1989/90	42	16	67	26	25	10
1990/91	47	16	76	26	33	11
Stock adjustment						
1989/90			12	4	12	4
1990/91			0	0	0	0
Total						
1989/90			79	30	37	14
1990/91			76	26	33	11
Pulses						
1989/90	8	4	0	0	0	0
1990/91	8	4	0	0	0	0
Total						
1989/90		21		30		14
1990/91		21		26		11
Maximum absorbable						
Cereal equivalent						
1989/90			79	30	37	14
1990/91			76	26	33	11
Pulses						
1989/90			0	0	0	0
1990/91			0	0	0	0
Total						
1989/90				30		14
1990/91				26		11

South America

Bolivia

Severe economic problems hampered agriculture and other sectors of the Bolivian economy in the mid-eighties. Corrective measures initiated by the government in 1986 helped stimulate the economy in 1987 and 1988. However, a lengthy drought in 1988 delayed recovery in the agricultural sector until 1989.

Soybeans are leading the upturn in agricultural output as lingering effects of the drought cut yields of some cereal and livestock enterprises in 1989. Additional improvements are expected in agriculture and other sectors in 1990 and 1991. But the Bolivian economy remains the poorest in South America. Slight changes in production or financial variables yield significant changes in additional food needs. The food situation in Bolivia remains precarious, even when production is increasing, as many Bolivians still survive on marginal or substandard diets.

Large commercial and concessional imports of wheat continue to fill shortfalls in domestic food production. Current revisions in estimated imports generated some significant changes in food needs estimates. Bolivia's commercial import capacity in cereal equivalents is 53,000 tons, down from 107,000 in 1988/89. The estimate of Bolivia's additional food needs to support domestic consumption increased from 181,000 to 302,000. Nutrition-based need are now estimated at 575,000 tons.

At 356,000, tons status-quo cereal import requirements for domestic consumption are roughly 35 percent of current use rates. Furthermore, because of Bolivia's limited financial capacity, tenders for 302,000 tons of cereal equivalent would need concessional financing to attract sellers. Similarly, all of the 575,000-ton requirement to fill production shortfalls to meet minimum international nutrition-based standards would require concessional financing.

Bolivia basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	642	93	151	461	360	149	Wheat	22.2
1982/83	576	65	210	450	360	143	Rice	5.2
1983/84	420	41	375	503	310	141	Corn	13.3
1984/85	694	23	254	510	410	156	Cassava	3.3
1985/86	755	51	290	545	470	168	Potatoes	7.6
1986/87	630	81	350	587	400	152	Total	51.7
1987/88	582	74	260	462	380	133		
1988/89	677	74	270	567	380	147		
1989/90	630	74						
1990/91	670	74						
Roots								
1981/82	1,180	0	0	1,180	0	214		
1982/83	1,187	0	0	1,187	0	210		
1983/84	497	0	0	497	0	86		
1984/85	943	0	0	943	0	160		
1985/86	1,118	0	0	1,118	0	185		
1986/87	1,037	0	0	1,037	0	160		
1987/88	948	0	0	948	0	150		
1988/89	1,125	0	0	1,125	0	174		
1989/90	975	0						
1990/91	1,050	0						

Import requirements for Bolivia

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	630	986	1,205	356	575	485
1990/91	670	1,007	1,233	337	563	468
Roots						
1988/89	975	1,138	1,208	163	233	434
1990/91	1,050	1,194	1,253	144	203	389
Cereal equivalent						
1988/89	746	1,101	1,374	355	628	703
1990/91	960	1,333	1,568	373	608	520

Financial indicators for Bolivia, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	1,021	1,526	281	100	740	8
1982	919	1,137	287	156	632	5
1983	899	1,143	289	160	610	5
1984	848	1,111	307	252	541	4
1985	737	1,100	249	200	488	3
1986	685	1,169	161	164	524	5
1987	666	1,210	137	97	529	3
1988	693	1,026	140	106	553	
1989	710	1,050	150	100	528	3
1990	710	1,050	150	100	528	3

Additional food needs to support consumption for Bolivia, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent Consumption						
1989/90	53	11	302	63	575	121
1990/91	59	11	314	59	549	103
Stock adjustment						
1989/90			(9)	(2)	(9)	(2)
1990/91			14	3	14	3
Total						
1989/90			293	62	566	119
1990/91			328	61	563	106
Maximum absorbable						
Cereal equivalent						
1989/90			293	62	566	119
1990/91			328	61	475	89

Peru

Good harvests in recent months have temporarily relieved chronic food shortages in Peru, but severe economic problems continue to stymie government efforts to find long-term solutions to Peru's food deficits.

Government austerity measures initiated in September 1988 improved the country's external financial position for 1989, but continued deficit spending, rising unemployment, and declining industrial output are compromising Peru's attempts to increase domestic agricultural output and commercial import capacity in the long run.

Peru has been a significant net importer of agricultural inputs, grains, and oilseed products in the 1980's and consumers have become dependent on imported supplies to maintain minimal dietary standards. Imports of wheat, rice and corn currently provide approximately 25 percent of the daily calorie intake of the country, and any real or perceived threat to continuing flows is politically unacceptable.

The latest assessment of Peru's food needs shows that both status quo and nutrition-based import requirements for 1989/90 are higher than previously assessed in February 1989. These increases primarily reflect downward revision in estimates of Peru's cereal and potato production for 1989/90. But total use estimates for major cereals and roots remain essentially unchanged at about 4.0 million tons of cereal equivalent annually. The status quo and nutrition-based estimates for 1989/90 are currently 3.9 and 4.1 million tons respectively.

Improvements in Peru's external financial position have raised commercial import capacity. It appears that Peru can afford to import about 725,000 of cereal equivalents, valued at $145 million for 1989/90. But additional food import needs of 945,000 tons of cereal equivalents are needed to meet estimated status quo needs. Similarly 1,143, tons of cereal equivalent are needed to meet nutrition-based needs for 1989/90.

An estimated $192 million and $230 million, respectively, would be needed in 1989/90 to finance status quo and nutrition-based import requirements for 1989/90.

Peru basic food data

Commodity/year	Actual or forecast production	Beginning stocks	Net imports	Nonfeed use	Feed use	Per capita total use	1979-81 Commodity coverage	1979-81 Share of diet
	1,000 tons					Kilos		Percent
Major cereals								
1981/82	1,156	260	1,525	2,131	500	148	Wheat	17.6
1982/83	1,205	310	1,389	1,964	600	141	Rice	13.5
1983/84	1,098	340	1,522	2,122	550	143	Corn	10.0
1984/85	1,484	288	1,136	2,064	493	133	Cassava	1.9
1985/86	1,283	351	1,073	1,947	520	125	Potatoes	6.4
1986/87	1,324	240	1,712	2,304	700	149	Plantains	2.9
1987/88	1,711	272	1,805	2,628	750	163	Total	52.3
1988/89	1,673	410	1,545	2,608	700	156		
1989/90	1,530	320						
1990/91	1,530	320						
Roots								
1981/82	2,452	0	(50)	2,402	0	135		
1982/83	2,511	0	0	2,511	0	138		
1983/84	1,991	0	0	1,991	0	106		
1984/85	2,222	0	0	2,222	0	116		
1985/86	2,140	0	20	2,160	0	110		
1986/87	2,304	0	0	2,304	0	114		
1987/88	2,404	0	(13)	2,391	0	115		
1988/89	2,700	0	0	2,700	0	127		
1989/90	2,360	0						
1990/91	2,460	0						

Import requirements for Peru

Commodity/year	Production	Total use		Import requirements		
		Status quo	Nutrition-based	Status quo	Nutrition-based	Maximum absorbable
	1,000 tons					
Major cereals						
1989/90	1,530	3,162	3,066	1,632	1,536	2,112
1990/91	1,530	3,242	3,139	1,712	1,609	2,201
Roots						
1989/90	2,360	2,523	3,435	163	1,075	644
1990/91	2,460	2,586	3,532	126	1,072	619
Cereal equivalent						
1989/90	2,213	3,892	4,083	1,679	1,870	2,154
1990/91	2,239	3,989	4,184	1,750	1,945	2,235

Financial indicators for Peru, actual and projected

Year	Exports and other credits	Imports and other debits	Debt service	International reserves	Foreign exchange available	
					Total	Share to major food imports
	$ million					Percent
1981	4,223	6,112	1,895	1,199	2,328	16
1982	4,186	5,962	1,521	1,350	2,665	12
1983	3,842	4,933	762	1,365	3,080	10
1984	3,974	4,353	631	1,630	3,343	8
1985	3,914	3,922	699	1,842	3,215	6
1986	3,460	4,689	490	1,407	2,970	8
1987	3,659	5,316	448	645	3,211	8
1988	3,730	5,015	521	518	3,209	
1989	3,700	4,850	500	500	2,570	8
1990	3,700	4,850	500	500	2,570	8

Additional food needs to support consumption for Peru, with stock adjustment and as constrained by maximum absorbable imports

Commodity/year	Commercial import capacity		Status quo		Nutrition-based	
	Quantity	Value	Quantity	Value	Quantity	Value
	1,000 tons	$ million	1,000 tons	$ million	1,000 tons	$ million
Cereal equivalent Consumption						
1989/90	725	145	954	192	1,145	230
1990/91	812	145	937	168	1,133	203
Stock adjustment						
1989/90			26	5	26	5
1990/91			36	7	36	7
Total						
1989/90			980	197	1,171	235
1990/91			974	174	1,169	209
Maximum absorbable						
Cereal equivalent						
1989/90			980	197	1,171	235
1990/91			974	174	1,169	209

Glossary

Status quo	A measure of per capita food availability in recent years
Nutrition-based	Per capita food availability sufficient to meet internationally accepted minimum caloric standards
Cereal equivalent	Cereal required to meet shortfalls in both cereals and roots and tubers
Import requirement	Imports necessary to achieve either status quo or nutrition-based food availability, including both commercial and concessional food shipments
Tons	Metric tons
Dollars	U.S. Dollars unless otherwise specified
GNP	Gross national product
GDP	Gross domestic product

* U. S. GOVERNMENT PRINTING OFFICE:1990-261-420:20176/ERS

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